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## **A SOCIAL SCIENCES**

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| AA | PHILOSOPHY AND RELIGION                                     |
| AB | HISTORY   |
| AC | ARCHAEOLOGY, ANTHROPOLOGY, ETHNOLOGY                        |
| AD | POLITICAL SCIENCES  |
| AE | MANAGEMENT, ADMINISTRATION AND CLERICAL WORK                |
| AF | DOCUMENTATION, LIBRARIANSHIP, WORK WITH INFORMATION         |
| AG | LEGAL SCIENCES  |
| AH | ECONOMICS   |
| AI | LINGUISTICS   |
| AJ | LITERATURE, MASS MEDIA, AUDIO-VISUAL ACTIVITIES             |
| AK | SPORT AND LEISURE TIME ACTIVITIES                           |
| AL | ART, ARCHITECTURE, CULTURAL HERITAGE                        |
| AM | PEDAGOGY AND EDUCATION                                      |
| AN | PSYCHOLOGY  |
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| AQ | SAFETY AND HEALTH PROTECTION, SAFETY IN OPERATING MACHINERY |



## EDUCATION OF FOREIGN STUDENTS IN UKRAINE DURING THE WAR: CHALLENGES AND VECTORS OF DEVELOPMENT

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**Abstract:** The study attempts to outline deep reasons of insufficient global competitiveness of Ukrainian higher education. State of the art in the field of attractiveness of Ukrainian higher education among foreign students is traced both in the period of Russia' invasion and in pre-war period. The author investigated overall trends in higher education export, and, based on the experience and practices of countries, suggested the perspectives for improving attractiveness of Ukrainian higher education for foreign students, in particular, employing the potential of higher education as soft power tool.

**Keywords:** education; globalization; education export; war; competitiveness.

### 1 Introduction

One of the leading trends in social development in the modern world is the constant growth of all types of mobility: tourism, labor, information mobility, etc. Modern higher education around the world follows this trend, and, accordingly, academic mobility is also growing. The objective basis for the emergence of the global education market is the comprehensive development of the education system and the increase in its importance. This corresponds to the general trend of globalization of education and science, which is expressed in increased mobility of scientific personnel and an increase in the number of joint international research. Global education (including online) and export of educational services are gaining momentum. UNESCO states that universal access to high-quality education is essential as it is the basis for peace, social and economic development, and intercultural dialogue [3]. Internationalization of education has become an important part of the current educational process. An analysis of global trends in the field of international education shows that the leader in the export of educational services is the USA - 40% of the world market, followed by the UK - 13%, Germany - 12%, France - 10%, Australia - 9%, Japan - 5%. All other countries 'receive' only 11% of international students [20]. Competition in the field of education between leading countries is very high, and this is not only about the economic efficiency of attracting foreign students. For modern scientific and technological development, the state needs many highly qualified specialists, including foreign ones.

In addition, education becomes a resource of soft power in political dominance, a competitive economic factor in the global market, and a way of producing social capital. Through the export of educational services, countries acquire not only economic dividends, but also the opportunity to implement their own geo-economic interests through the mechanism of soft power [5]. In these conditions, education becomes an indicator of social transformations, sensitive to megatrends that change the present and shape the future of society [3]. Such a megatrend is the desire of most states to establish a balance between the social and technological development of the country, attracting the resources and capabilities of the education system. Therefore, in assessing the competitiveness of a state, the socio-economic aspects of its development are increasingly taken into account, the provision of which is entrusted to the export potential of education. Because of this, the possibilities of exporting education become the subject of transdisciplinary research using the methodology of sociology of education, sociology of international relations, economic sociology, sociology of management, and economics. Based on the results obtained, national education export projects are built.

Most foreigners study in the United States today, but it will be quite difficult for the United States to maintain this position, since competition in this market is getting tougher. Many countries are taking measures to activate and stimulate the

export of educational services. For example, in Germany in 2010 they set a goal to increase the number of foreign students to 350 thousand by 2020, however, according to the German Academic Exchange Service (DAAD) and the German Center for Research in Science and Higher Education (DZHW), this figure has already been achieved in 2018. France is not lagging behind Germany – it plans to increase the number of foreign students by one and a half times, that is, to 470 thousand by 2025 [2]. In the United States, higher education is the fifth largest export item of the American economy in monetary terms, which sometimes exceeds even the amount of revenue from arms exports. In Australia, the education sector is the third largest source of budget revenues in the country's economy [11].

The internationalization of education pursues various goals, including: diversification and growth of financial revenues through attracting foreign students for paid education; expansion of curricula and training of its students in foreign partner universities; expansion of the university's regional network to effectively use its resources; improving the quality of education and research through the participation of students and teachers in the international process of knowledge exchange, etc. The development of international inter-university cooperation makes it possible to organize joint research projects, exchange programs for students and teachers, and special programs for foreign students.

Various programs of the European Union (for example, ERASMUS, SOCRATES, TEMPUS), as well as projects initiated by national organizations of member countries of the Organization for Economic Cooperation and Development (OECD) (USAID, IREX, British Council, DAAD, CIDA, EduFrance, etc.), aimed at developing mobility, greatly contribute to the development of the internationalization process. Objectively existing trends in the internationalization of education are turning into a controlled process.

Countries that did not previously consider the internationalization of education as part of their development strategy, in the situation of globalization, are now forced to define themselves and find themselves in the emerging global educational space. However, despite the objectivity and obvious irreversibility of the process of globalization of education, it does not lead to internationalization (active and effective cross-country cooperation for the purpose of mutual enrichment and exchange of experience in the field of education) in all countries. The key point is the different capabilities of countries to respond to the process of globalization, the "erasing" of national borders and the need to enter the global economic space. Many countries, for various reasons (low level or transitional stage of economic development, lack of political stability, information isolation, low technological capabilities, etc., and the low level of education of the population associated with these factors) found themselves on the periphery of global trends. As a result of the high pace of globalization and technological progress, the gap between countries is only increasing. The "new educational inequality" is associated with the widening gap between developed and developing countries in the level of education of the population and in the growth rate of educational services (qualitatively and quantitatively) [18].

While the lack of political stability has a very negative impact on the attractiveness of national higher education for foreign students, especially the martial law, the state of a "hot" military conflict, has an extremely negative impact on the country's competitiveness as an exporter of higher education. Ukraine faced this challenge in 2022, after the start of a full-scale invasion of the Russian Federation.

The war led to the largest economic downturn in the history of independent Ukraine. Almost a month later, according to Treasury Department tax revenue calculations, 30% of the economy was not functioning. The budget deficit immediately

rose to \$5 billion per month, against pre-war expectations of \$600 million [8]. However, already from the third quarter of 2022, the economy began to show signs of recovery, primarily due to adaptation to changes and the resumption of consumption. Already at the end of last year, the Ukrainian economy began to recover and grew by 5%. According to experts, economic growth this year, although slowing down, will continue unless new significant security risks appear. Given that the war has entered the phase of protracted trench warfare, it can be assumed that the overall security landscape will not change fundamentally in the near future.

The Ukrainian education system adapted quite well to the war conditions. The experience of the Covid-19 pandemic helped to move quickly to online learning. The experience of the 2014 war made it possible to solve the problem of moving higher education institutions and ensuring payments to teachers and students [6]. This time, the country also managed to move the institutions of vocational pre-higher education, while in 2014 such institutions were lost. A lot of institutions working in the rear regions have joined the internal mobility programs.

Before the start of the full-scale invasion, more than 70,000 foreign students were studying in Ukraine. However, because of the war, some people left the territory of the country, and for new students, admission to Ukrainian higher education institutions may not seem so attractive.

In 2023, in the conditions of war, the number of foreign students in Ukraine decreased to the level of 2011-2012 - slightly more than 50 thousand. The following "universal" specialties that are in demand in developing countries remain the most popular: medicine, management, pedagogy. According to information from the Unified State Electronic Database on Education, as of January 1, 2024, 34,462 foreign students were pursuing higher education in Ukrainian educational institutions. Reducing of the number of foreign students during war is quite understandable and unlikely itself is an indicator of any reducing of education quality. However, except war, there are still also other reasons, of a deep nature, and problems with attracting foreign students into the system of higher education in Ukraine arose much earlier than the beginning of RF' full-scale aggression.

First of all, it is expedient to consider the qualitative content of foreign students in Ukraine according to their country of origin. The countries of origin of foreign students in Ukraine in 2019 are presented in Figure 1. The year was chosen not accidentally. This was a period when, except a part of eastern regions (Donbass), the country was not actually affected by war in any significant way for population. Moreover, this was a period of declared increasing cooperation with the EU on the path to European integration, which, naturally, would presume efforts to approach the European quality of higher education.

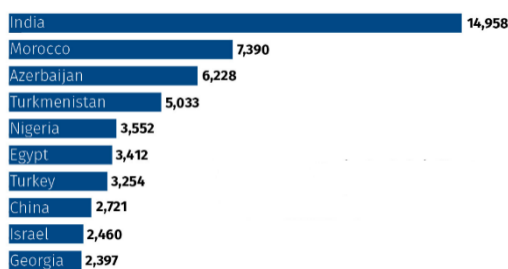


Figure 1. Countries of origin of foreign students in Ukraine [7]

However, the problem is not related purely to war. If to look at the chart of dynamics of number of international students in Ukraine in the period of 2011-2016, rather stagnant trend can be seen (see Figure 2).

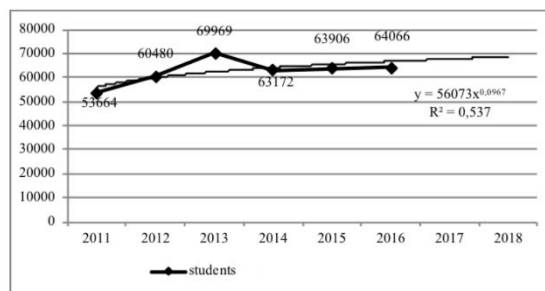


Figure 2. Dynamics of number of international students in Ukraine (2011-2016), (number of people) [16]

In comparison, even in shorter period (2011-2015) Turkey increased the number of foreign students almost 3 times – from 25 to 72 thousand [19].

If to look at the dynamics of overall decrease of students in Ukrainian higher education institutions of III-IV accreditation levels, characteristic for country since 2009 (see Figure 3), the situation in higher education in Ukraine seems to be even more disappointing.

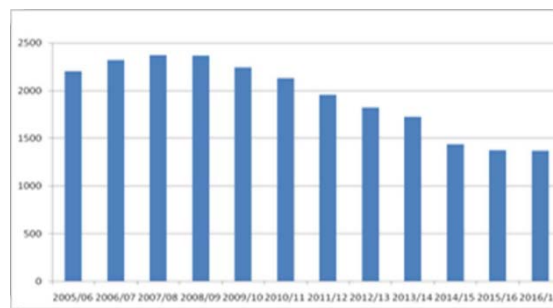


Figure 3. The amount of students in Ukrainian higher education institutions of III-IV accreditation levels, 2005-2016 [12]

According to Hnatyuk [7], "foreign students in Ukraine are attracted by affordable education". Indeed, this is precisely characterizes the factor of attractiveness of Ukrainian higher education. However, in order to gain real European and global competitiveness, Ukraine should attract foreign students rather by quality of education than by its cheapness.

In the conditions of full-scale war, this task naturally complicated. But one should not forget that, as history evidently shows, after the initial shock of the war, individual countries that were victims of military aggression appeared able to effectively mobilize their economies and significantly increase production even during martial law. The rise and development of national higher education, increasing its international competitiveness during the war is also possible with a competent approach.

## 2 Materials and Methods

The theoretical basis of the study is the concept of internationalization of education, based on the idea of readiness of subjects of the educational process for its implementation and ensuring the competitiveness of the university in a single international educational and research space.

The argumentation of theoretical positions and conclusions obtained was carried out by the author on the basis of the use of a constructivist research paradigm and dialectics, applying the following general scientific research methods within the framework of a systematic approach: historical-genetic, structural-functional, subject-object, logical, comparative methods.

### 3 Results and Discussion

The internationalization of the higher education system and the integration of the educational space in the world are the most important trends characterizing the reform of national higher education systems and, therefore, determining the vector of development of modern universities. The need to export higher education and maintain its sustainable competitiveness is the driver of the search for opportunities to expand the attraction of foreign students [9].

It should be noted that many countries have begun to use agents around the world to attract foreign students, who receive commission payments from universities. For example, a Times Higher Education (THE) survey back in 2013-2014 found that of 158 UK higher education institutions, all except 19 elite or specialized institutions currently use agents to attract students from non-European union countries; and namely with the help of such "education" agents, 32.5% of all new foreign students were recruited [4].

Ukrainian universities have sufficient potential to fight for a share of the educational services market. Foreign students in Ukrainian education are attracted by the relatively low cost of education and living, the fundamental nature of certain areas of education (physics, mathematics and chemistry schools are recognized all over the world) and the reputation of leading Ukrainian universities, which has been preserved for many years. However, the majority of foreign students in Ukraine are from African and Asian countries. Most students are from India, Azerbaijan, Morocco, Nigeria, Turkey, China, Turkmenistan, Georgia. Meanwhile, in order to fully enter the European educational space as a full participant, Ukraine needs to increase the attractiveness of its higher education for students from European countries as well.

In order to adequately assess the competitive advantages or disadvantages of Ukrainian education, it is necessary, first of all, to analyze the requirements of the global market. Monitoring of student preferences shows that business education is valued above all in the international market. Almost 20% of students study technical and engineering sciences, the most popular of which are information technologies. About the same number of students choose natural sciences. Medicine closes the list - 4-5%. On the other hand, in Ukraine as of 2014, 25% (over 16,000) of foreign students were studying medicine, 20% (over 13,000) were studying technical sciences. Humanitarian and economic faculties of Ukrainian universities are less popular among foreigners [11].

Ukraine has seen a remarkable increase in foreign enrollment over the past 20 years and has become a popular destination for Indian students. According to data from the Ukrainian government, India is the nation that sends the most foreign students to Ukraine overall. Additionally, Ukraine is one of the most popular study abroad locations for Indians [1]. Ukrainian experts describe these statistics exclusively as an achievement and, unfortunately, do not see a problem in the lack of diversification of the foreign student population.

But even this statistics become not such joyful when to look at the situation deeper. Pandey [14], analyzing the reasons of popularity of Ukrainian medical education among Indian students, notes that Indian parents prefer to send their children to some state-run colleges in Ukraine because of their reputation for offering top-notch education, as opposed to paying a hefty tuition fee for a lesser-known private medical college in India. In order to be licensed to practice medicine in India after returning home with their international MBBS degrees, students must pass the international Medical Graduate Exam (FMGE) administered by the National Board of Examinations. Only around 700 of the nearly 4,000 Ukrainian medical graduates who take the FMGE each year succeed. Surprisingly, in addition to affordability, there is another reason Indian students select Ukraine for their medical studies: there are no entrance tests to pass in order to enroll in medical schools.

The top majors for which foreign students most often enter Ukrainian higher education institutions are as follows: (in descending order): management, pedagogy (high school teachers), medicine, economics, computer science, finance and insurance, choreography, psychology, international law. Students from China predominate among foreign applicants who enroll in many popular majors, with pedagogy and computer science in first place. While medical majors are popular among students from almost all countries of origin, pedagogy majors are in demand mainly among students from China. Fig. 4 below shows most popular specialties among international students.

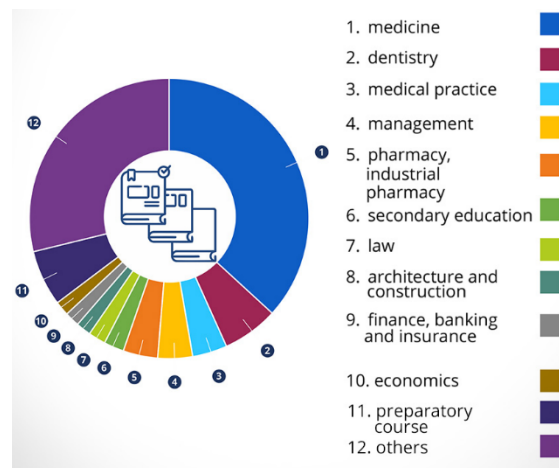


Figure 4. Most popular specialties among international students\*

\* according to the data of Ministry of education and Science of Ukraine

Thus, the competitive quality of education is far not among the main reasons for foreign students to study in Ukraine.

As of January 1, 2022, there were about 320 independent universities, institutes, and academies, as well as 45 independent colleges in Ukraine. Of this number, 220 higher education institutions are in state property, 32 are communal, and 113 are private. Institutions of higher education have 450 branches and professional colleges in their structure [10].

In March-April 2022, most universities resumed distance learning. To facilitate this process, the Ministry of Education recommended for students of non-graduation courses to transfer part of the educational components, which cannot be completed in a distance or mixed format, to the following periods of study or to make a decision on the early completion of the academic year, if there is an urgent need for this. The requirements for certification of higher education applicants were eased. Thus, in 2022, the Government canceled the attestation of medical students in the form of a single state qualification exam (SQET), which is conducted by an institution independent of universities. Instead, certification of graduates should take place in the form of a comprehensive practical-oriented qualification exam. It is necessary to remind that medical students in Ukraine pass the EDKI, which includes the integrated test exam "KROK", an objective structured practical (clinical) exam, and an English language exam for a professional direction. Subsequently, a similar decision to cancel the Unified State Qualification Exam in 2022 was also made for some other specialties. Unlike medical specialties, where the EDKI was already held in previous years, for these specialties this exam was supposed to be held for the first time in 2022. Attestation of students in these specialties was allowed to be carried out in the form determined by the institution of vocational pre-higher or higher education [10].

The new Procedure for admission to higher education in 2022 was approved at the end of April. The key innovations of the Procedure were the replacement of the traditional external



independent assessment (EIA) with the national multi-subject test (NMT) for admission to the bachelor's level of higher education and the replacement of the unified professional entrance test (EVVV) and the unified foreign language entrance exam (EVI) with their simplified versions - depending on the specialty, the master's test of educational competence (MTNK) and the master's comprehensive test (MKT). The NMT in 2022 structurally consisted of three academic disciplines - Ukrainian language, history of Ukraine, and mathematics. At the same time, a number of norms provided for in the Procedure for admission to higher education institutions in 2022 caused criticism. One of these issues was the approved list of subjects of the national multi-subject test - Ukrainian language, history of Ukraine, and mathematics. Among the critical objections, one can single out the impossibility of choosing subjects, the unreasonableness of the choice of mathematics for those who were going to enroll in humanitarian specialties, and vice versa, the unreasonableness of the history of Ukraine for those who were going to enroll in technical and engineering specialties [10]. This criticism is quite fair - the list of disciplines included in the testing actually does not correspond 100% to the trends of globalization of higher education and the convergence of educational standards.

Another important issue of the Admission Procedure was a significant reduction in requirements for applicants compared to the previous year. In addition to the reduction in the number of test tasks from the three components of the NMT, the procedure for setting threshold scores during the conduct of both the national multi-subject test and the master's complex test, as well as the master's test of educational competence has disappeared. The absence of thresholds in 2022 meant the possibility of admission to institutions of higher education if there was at least one correct answer in each of the subjects or passing the test using the blind guessing method. Of course, this creates extremely high risks of graduating students with a critically low level of competencies, as well as risks of students' dropout due to inability to fulfill training requirements.

As for the admission of foreigners to higher education institutions, in accordance with the order of the Ministry of Education and Culture of Ukraine, it is carried out within the quotas for foreigners. The institution of higher education calculates the entrant's points/grades on the basis of the document on the previously obtained level of education and establishes the minimum value of the number of points/grades in the general education subjects required for admission, from which the entrance test is conducted. Enrollment of foreigners to study at the appropriate level of higher education is carried out based on the results of entrance exams in specified subjects and the language of study and on the basis of academic rights to continue studies, provided by a document on the level of education obtained in the country of origin. However, whatever the entry rules for foreigners may be, the simplification of the admission rules for national citizens described above creates sound risks of reducing the quality of Ukrainian higher education and, accordingly, decreasing the level of its attractiveness for foreign citizens.

In 2022, the requirement to pass an external examination in the second and third subjects with a minimum of 150 points for admission to the main medical specialties was also abolished. This requirement was introduced in 2019 to select better-prepared entrants for medical specialties. The reason for abandoning this norm in 2022 was an attempt to compensate higher education institutions training doctors for the loss of foreign students caused by the war by replacing them with Ukrainian students [13]. Such steps negatively affect the reputation of Ukrainian higher education among foreigners and thus reduce its competitiveness. Despite understanding the challenges created by the war, a foreign applicant from a developed country is unlikely to choose a Ukrainian university.

It should be remembered that government policy significantly influences a country's presence in education markets. Thus, in the UK, the number of students from the European Union

decreased due to the government's Brexit policy; US government policy led to a decrease in the number of Chinese students, who constituted the largest segment in the education market.

The state policy of Ukraine in the field of increasing the attractiveness of universities for foreign students should be based on a policy of multiculturalism and at the same time using the potential of education as soft power. It seems appropriate to move away from the victim position in the global educational discourse and focus on the intensive and innovative development of higher education in the western regions of the country, which have not been affected by military operations and have actually changed their security landscape little. Over the past years, Lviv has become one of the major tech hubs in Ukraine. The first Robotics Laboratory in western Ukraine was opened at Lviv Polytechnic in the current year. Chernivtsi National University named after Yuri Fedkovich (ChNU) was able to establish a huge number of international connections with European universities. The favorable territorial location makes it easy to interact with higher educational institutions in Poland, Austria, Romania, the Czech Republic, and Germany.

Only with a position of innovation and a desire for real leadership in those disciplines that have traditionally been at a high level in Ukraine (engineering specialties, fundamental physics and mathematics, IT, medicine, architecture and construction, and a number of other specialties), Ukraine has a good chance of being among the leaders in today's STEM education. However, for this, it is necessary to abandon populism, including ill-conceived and unproductive budget expenditures in the field of higher education, and create an effective road map and appropriate strategies, based on best practices of foreign countries.

A good example is Poland, which has become one of the leading countries in the European education system. In Poland, more than 100,000 international students attended universities during the 2022–2023 academic year. Over the investigated period, there was an almost 94% rise in the number of foreign students in Poland (see Figure 5).

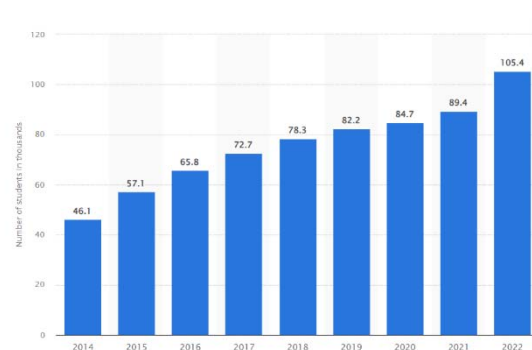


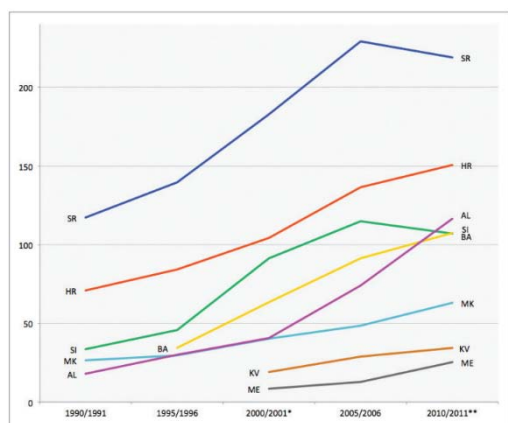
Figure 5. Number of studying foreigners in Poland 2014-2022 [17]

Poland belongs to the top 10 European countries attractive to foreign students.

English-taught study alternatives are now more widely available in Polish universities than ever before. It makes sense, then, that in just ten years, the number of international students studying in Poland has skyrocketed from 12,000 to over 65,000. Thirty European countries were compared by the ranking's writers. The countries of the European Union were not the only ones included in the selection; Norway, Russia, Ukraine, and Turkey were all included [15]. The following countries have positions above Poland in the ranking: the Netherlands (4th place), Russia (5th), Switzerland (6th), Sweden (7th), Belgium (8th) and Italy (9th place) [15].

In this ranking, among 30 countries, Ukraine appeared among the evident outsiders (places 21+), while the aggressor country appeared at the 5<sup>th</sup> place, after the United Kingdom, Germany, the Netherlands, and France. Concerning Ukraine, being at that time in the state of hybrid conflict with Russia in Donbass, this situation seems shocking – the country did not make efforts to use great potential of soft power provided by education, although had good base for it.

Figure 6 evidently shows that war conflicts quite not ‘obligatory’ lead to decline in higher education: during the Yugoslav Wars – a series of armed conflicts in 1991-2001 on the territory of the former Yugoslavia in times of the collapse of the country – number of students in higher education demonstrated quite sound growth.



Notes: ME – enrolled in 2002-2003; AL – enrolled in 2009-2010;  
BA, KV and ME – earlier data is missing.

Figure 6. Students (in thousands) enrolled in higher education institutions in Balkan countries, 1990/91 – 2010/11, by countries [21]

In order to restore and develop international competitiveness, Ukrainian universities must respond to rapid changes in the field of global education. Those universities that can quickly adapt to modern, including Western, practices will have an advantage. The role of non-state universities, which can be more mobile and open to modern educational trends and ready for challenges, is increasing. Studies of Western educational systems have revealed that universities that develop a market orientation, that is, quickly respond to market needs, are much more effective [20]. The introduction of new technologies, the attraction and decent payment of specialists of the required profile and quality, attention to marketing, the absence of bureaucratic difficulties and openness to cooperation with foreign colleagues – all this gives universities (including non-state ones) a great advantage.

To promote the Ukrainian education system, it is necessary not only to advertise and create specialized Internet resources in various regions of the world (especially in priority regions), but also to actively interact with foreign universities and their Internet and media resources. Ukrainian universities need to create more centers of their presence in various countries, possibly with the participation of Ukrainian diplomatic institutions.

#### Literature:

1. Barman, R. (2022, March 9). Explained: What makes Ukraine a study destination for Indians and others. *The Indian Express*. <https://indianexpress.com/article/explained/what-make-s-ukraine-a-study-destination-for-indians-and-others-7807594/>
2. Beghin, J., & Park, B. (2021). The exports of higher education services from OECD countries to Asian countries: A gravity approach. *The World Economy*, 45(4), 1050-1080.
3. Branch, J., Horsted, A., & Nygaard, C. (Eds.). (2018). *Globalisation of higher education: Political, institutional, cultural, and personal perspectives*. Libri Publishing.

4. Ennew, C., & Greenaway, D. (Eds.). (2016). *The globalization of higher education*. Palgrave Macmillan.
5. Gauttam, P., Singh, B., Singh, S., Bika, Sh., Tiwari, R. (2024). Education as a soft power resource: A systematic review. *Heliyon*, 10(1), e23746.
6. Gromov, I., Kolomiets, A., Suprun, M., Kolomiets, T. (2022). Internationalization of higher education in Ukraine as an integral component of the globalization process. *Scientific Journal of National Pedagogical Dragomanov University Series 9 Current Trends in Language Development*, 1(1), 56-61.
7. Hnatyuk, V. (2019, October 4). Foreign students in Ukraine attracted by affordable education. *Kyiv Post*. <https://archive.kyivpost.com/ukraine-politics/foreign-students-in-ukraine-attracted-by-decent-affordable-education-system.html>
8. Kolodko, G. (2023). *Global consequences of Russia's invasion of Ukraine: The economics and politics of the second Cold War*. Springer.
9. Lopez-Leyva, S., & Rhoades, G. (2016). Country competitiveness relationship with higher education indicators. *Journal of Technology Management & Innovation*, 11(4), 47-55.
10. Nikolaev, E., Riy, G., & Shemelinet, I. (2023). Higher education in Ukraine: Changes due to the war: Analytical report. Kyiv University named after Boris Grinchenko.
11. NISS (2014, December 17). “Ukraine on the international market of educational services of higher education”. Analytical note. <https://niss.gov.ua/doslidzhennya/gumanitarniy-rozvitok/ukraina-na-mizhnarodnomu-rinku-osvitnikh-poslug-vischoi-osviti>
12. Ostenda, A., Wierzbik-Strońska, M., Nestorenko, T., Ivanchuk, V. (2017). Ukrainians in Poland: Legal, economic and social aspects (case of Silesian province). *Proceedings of International Relations 2017: Current issues of world economy and politics*, Smolenice Castle, Slovakia. [https://www.researchgate.net/publication/353760863\\_UKRAINIANS\\_IN\\_POLAND\\_LEGAL\\_ECONOMIC\\_AND\\_SOCIAL\\_ASPECTS\\_CASE\\_OF\\_SILESIAN\\_PROVINCE](https://www.researchgate.net/publication/353760863_UKRAINIANS_IN_POLAND_LEGAL_ECONOMIC_AND_SOCIAL_ASPECTS_CASE_OF_SILESIAN_PROVINCE)
13. Osypchuk, A., Yakovlev, M., Suslov, A., Usachova, V., Shulimov, S. (2022). Universities during the war: From an educational institution to a social mission. Kyiv: School of political analysis of NaUKMA.
14. Pandey, N. (2022, February 28). Why is Ukraine such a popular choice for Indian medical students? *WION*. <https://www.wionews.com/india-news/why-is-ukraine-such-a-popular-choice-for-indian-medical-students-456990>
15. Poland among the top 10 European countries attractive to foreign students (2018, March 3). *Science in Poland*. <https://scienceinpoland.pl/en/news/news%2C28566%2Cpoland-among-top-10-european-countries-attractive-foreign-students.html>
16. Ryznikov, V., Borysova, A., & Mutazakki, N. (2018). Educational diplomacy and its role in the development of international economic relations. In: *Marketing innovations in education, tourism, hotel and restaurant, food industry and trade: a collective monograph* (pp.54-68). Kharkiv: Ivanchenko I. S. Publishing House.
17. Sas, A. (2023, November 7). Number of foreigners studying in Poland from 2014 to 2022. *Statista*. <https://www.statista.com/statistics/1072307/poland-number-of-foreign-students-2014-2019/>
18. Suzuki, M. (2023). *Aiding higher education with export expansion in the developing world*. Cambridge University Press.
19. Unal, S. (2017). The new actors of international migration: A comparative analysis of foreign students' experiences in a medium-sized city in Turkey. In: *People's Movements in the 21st Century - Risks, Challenges and Benefits*, Chapter 12.
20. Westover, J. (2017). *Globalization and higher education*. Common Ground Publishing.
21. Zgaga, P., Klemenčič, M., Komljenovič, J., Miklavič, K., Repac, I., Jakačić, V. (2013). *Higher education in the Western Balkans: Reforms, developments, trends*. University of Ljubljana. [http://pdc.ccu.hu/archive/00006816/01/higher-education-on-balkans\\_2013.pdf](http://pdc.ccu.hu/archive/00006816/01/higher-education-on-balkans_2013.pdf)

Primary Paper Section: A

Secondary Paper Section: AE

## EVOLUTION OF COLLABORATIONISM IN THE TEMPORARILY OCCUPIED SOUTH OF UKRAINE IN THE YEARS 2022-2024

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**Abstract:** This article is dedicated to exploring the evolutionary processes within the environment of collaborators - local residents who voluntarily and proactively cooperate with Russian aggressors in the temporarily occupied territories of southern Ukraine. The study addresses both theoretical (to elucidate changes in collaborationism as a complex of social practices) and practical (to compile a socio-demographic and psychographic profile of enemy collaborators) aspects. Based on contemporary theoretical concepts and empirical data, conduct a comprehensive analysis of the evolution of collaborationism in the temporarily occupied territories of the Zaporizhzhia and Kherson regions during the years 2022-2024. The authors rely on functionalist (M. Gechter and M. Vidal-Ansari), identification (V. Chachava), resource-adaptation (V. Horobets) approaches to defining collaborationism, as well as P. Sorokin's ideas regarding the peculiarities of social mobility during periods of political turbulence. Empirical data collection utilizes content analysis of information from pro-Ukrainian Telegram channels. The study identifies the main factors of collaborationism (ideological sympathies, family ties, and experience working in the aggressor state), determines the primary forms of interaction with occupiers (the most significant being participation in anti-Ukrainian propaganda), analyzes the dynamics of the socio-demographic composition of enemy sympathizers (an increase in the number of youth and urban population), and emphasizes changes in the proportion of representatives from different professional strata among collaborators (an increase in the percentage of officials and small entrepreneurs). It is highlighted that within the collaborator environment, two processes are ongoing - the preservation of their socio-status positions in higher social groups (officials and public sector employees) and active vertical intergroup transitions in lower social categories (workers and retired).

**Keywords:** occupation; collaborationism; social regression; patron-client relationships; social mobility.

### 1 Introduction

The Russian occupation of parts of the Zaporizhzhia and Kherson regions has been ongoing for the third year, compelling us to reassess the socio-political processes occurring beyond the front line. In fact, discussing society aspect here is unnecessary, as one of the main features of fascism, like any other totalitarian ideology, is the complete state control over all spheres of life, even seemingly secondary ones. Furthermore, over time, the occupation regime has undergone a certain institutionalization process - the "management" system has been organized whose representatives gained "experience" during the organization and conduct of pseudo-referendums and illegal elections. Artificial local self-government bodies have been formed, a new "administrative-territorial structure" has been approved, and a crucial aspect is significant strengthening of the system of repressive-punitive bodies.

Additionally, collaborationism remains integral to consolidating Russian power - a social process wherein inhabitants of the occupied territories consciously, voluntarily, and intentionally collaborate with the enemy in his interests and to the detriment of their own state. Southern Ukraine exhibited particular characteristics in its formation as the low intensity of combat operations in the first weeks of the war led to few civilian casualties and limited infrastructure destruction. In fact, the enemy entered entire cities and villages with tens of thousands of local residents. Russians continue to exploit this fact to propagate the narrative that "Ukraine betrayed you because it does not need you anymore".

The issue of normative and emotionally evaluative attitudes towards collaborationism is ambiguous. On the one hand, the

state has fairly clearly defined its stance towards various forms of betraying the homeland in Article 111 (Note) of the Criminal Code of Ukraine. On the other hand, unfortunately, the emotional and evaluative perspective on cooperation with occupiers has evolved over time. What initially appeared as a deviation and flagrant violation of social and moral norms during the early weeks and months of hostile rule is now perceived much more leniently. We are not discussing individuals who have assumed positions in occupation administrations, law enforcement structures, and pseudo-schools, constituting a small percentage of the population. Nevertheless, life continues, and many individuals who, for various reasons, have remained in the occupied territories, are endeavoring to adapt to the new realities. In this context, the issue of economic activity beyond the front line becomes particularly salient. Current legislation criminalizes any economic activity undertaken in collaboration with the aggressor state and illegal authorities. How justifiable is this now, given that these norms were enacted in March 2022, when society was predominated by unwarrantedly optimistic views regarding the terms for ending the war and occupation? There are numerous instances, since collaborationism has transitioned from an extreme phenomenon to a fairly pervasive social practice. Evidently, post-deoccupation, there will be a necessity to amend pertinent legislation to enhance accountability for certain categories of crimes (especially in the domain of war propaganda and animosity towards Ukraine) and to decriminalize other collaborationist behaviors (such as retail trade conforming to Russian laws).

However, all of this remains a matter for the future. Currently, the relevance of the investigated issue is evident in both theoretical (to elucidate the fundamental changes in collaborationism as a complex of social practices from the onset of occupation to the present) and practical (to compile the socio-demographic and psychographic profile of collaborators) aspects. From the above discussion, the aim of the article emerges: to conduct a comprehensive analysis of the evolution of collaborationism in the temporarily occupied territories of Zaporizhzhia and Kherson regions during the years 2022-2024, based on contemporary theoretical concepts and empirical data.

### 2 Materials and Methods

In our research, we relied on several theoretical frameworks that allow describing various aspects of the genesis of collaborationism. According to the model proposed by M. Gechter and M. Vidal-Ansari, collaborationism is viewed as a functional dependency of the local population on occupiers regarding access to essential goods [9]. Whether one desires to initiate a business - complying with Russian laws, or to deploy agricultural machinery in the fields - negotiations with the commandant are necessary. Researchers delineated the interdependence between the "net benefit" provided by the occupier to the local community and the likelihood of cooperation. However, following the occupation of southern Ukraine, no tangible "net benefits" were offered, and militarized Russia was unable to deliver any. Instead, an illusion is crafted of hungry Ukrainians expressing gratitude to the "liberators" for food parcels, and "happy" schoolchildren celebrating the opportunity to learn in Russian.

Equally notable is the interpretation of collaborationism as a method of political identification proposed by V. Chachava [2]. The researcher emphasizes that "the destruction of even the slightest stability represents the most potent tool for eroding human existence and freedom - both as a choice and as a responsibility". The intrusion of a foreign army triggers anomie and dismantles previous social relationships. In such circumstances, political identification, as a form of symbolic affirmation of belonging to a specific group, assumes particular significance: both in defining one's identity and as evidence of an individual's necessity for it. Thus, the recognition of the

substantial potential of pro-Russian sentiments commences, prevalent in southern Ukraine throughout the years of independence and notably expressed during electoral campaigns. For instance, during the parliamentary elections of 1998, 60% of Kherson residents and 62% of Zaporizhzhia residents voted for political entities advocating political and economic unity with Russia. Eight years later, these figures rose to 62% and 68%, respectively. Even in the most recent local elections, six years after Russia's initial assault on Ukraine, candidates with favorable inclinations towards the northeastern neighbor secured 43% of the votes in Zaporizhzhia and 35% in Kherson.

Equally important in explaining the origins of collaboration with the enemy is the institutionally dysfunctional model of collaborationism. S. Makieiev observed that under extraordinary circumstances such as war and occupation, the social structure undergoes a transition from a relatively stable state to singularity, representing a blend of diverse old and new elements. The disharmonious, constantly disrupted rhythm of social metabolism generates new structural products – unwelcome and unexpected arrivals that reshape the societal environment and give rise to fundamentally new forms of social interaction among individuals. Alongside existing social institutions and organizations, individuals introduce their own innovations and contributions [11]. Collaborationism emerges as one such innovation – a social practice aimed at preserving and, if possible, enhancing one's own socio-status resources through demonstrative loyalty to the new political order. However, fundamentally, such behavior is dysfunctional, as behind the appealing facades of institutions imposed by occupiers, terror and hatred hide. In such circumstances, the performance of seemingly routine social practices and procedures results in the reinforcement of enemy power and further severe societal consequences, inflicting significant harm on people's lives and health.

In the socio-stratification dimension, the nature of collaborationism is elucidated by P. Sorokin's theory of the rapid acceleration of social structure transformation during revolutionary and military upheavals, the mobilization of individuals and groups that were previously on the sidelines of socio-political processes, the alteration of behavior and psychology among participants in artificially induced upward social mobility ("from rags to riches"), and consequently, the complete overhaul of traditional criteria for social stratification – shifting from traditional Weberian indicators (income, prestige, power, education) to a singular criterion (loyalty to the new authority) [14].

The resource-adaptation approach, as described by V. Horobets, examines the evolution of collaborationism in the context of changes in complex socio-psychic formations encompassing various forms of human activity, behavioral models aimed at satisfying basic physiological and social needs, and adaptation methods to complex living conditions [7]. While at the beginning of the occupation, any form of interaction with the occupiers, especially obtaining a passport from the aggressor state, was perceived as an immoral act and deviation, now the possession of Russian documents has become a matter of physical survival.

The empirical basis of the study consists of information from open sources about individuals who, in various forms, collaborated with Russian occupiers in the temporarily occupied territories of the Zaporizhzhia and Kherson regions, for which liability is provided according to the Criminal Code of Ukraine. To this end, data from Telegram channels such as "Suki Melitopolia" ([https://t.me/suki\\_melitopolya](https://t.me/suki_melitopolya)), "Zradnyky Melitopolia" ([https://t.me/melitopol\\_traitors](https://t.me/melitopol_traitors)), "Skelety Shevchyka i Ko" ([https://t.me/actual\\_energodar](https://t.me/actual_energodar)), "Berdiansk online" (<https://t.me/brdnews>), and "Yakymivka Melitopolskyi raion" (<https://t.me/yakumivka2023>) were utilized. The reliability of the obtained information is questionable since it was generated by an extremely wide range of user of Telegram resources, has an exclusively subjective-evaluative character, and may be based on personal biases, revenge, and so on.

However, it is worth considering the fact that there are currently no other safe ways to study this issue. It can be expected that after the liberation of the South, more reliable data can be obtained from materials of law enforcement agencies or through conducting informal interviews with collaborators of the enemy who remain in free Ukraine.

The gathered results underwent systematic organization, codification, processing, and analysis utilizing the SPSS 17.0 software. This analysis was conducted based on several key characteristics: gender, age, connections with Russia (such as residence, education, relatives, work trips, and business - forming hypotheses regarding external factors of collaborationism), profession (workplace) prior to the occupation (forming hypotheses about collaborationism as a mechanism for social mobility amidst disruptions to the established institutional order and career progression system), post-occupation sphere of collaborationist activity, presence of collaborators among immediate relatives (testing the hypothesis of social networks as a channel for collaborationism), occupation of positions within occupation authorities or law enforcement agencies, specific modes of cooperation with the enemy, and type of settlement (testing the hypothesis of the role of spatial factors in collaboration with the occupiers). In total, data concerning 1400 individuals - residents of the occupied territory of the Zaporizhzhia region - were inputted into the database.

### 3 Results

The evolution of collaborationism should be viewed within the broader context of regressive social processes occurring in temporarily occupied territories. Among the negative changes that contribute to the bolstering of the enemy's position and the proliferation of interaction practices with them, uricide (the destruction of cities as physical-spatial and social communities), moral-value anomie, deformation of the social structure, artificially inflated rates and volumes of social mobility, destruction of Ukrainian national identity, acceleration of russification, and dysfunction of leading social institutions stand out.

Our research results indicate that only about a third of current collaborators have aligned themselves with the kremlin out of ideological considerations. Well before the onset of full-scale invasion, these individuals publicly condemned the Revolution of Dignity, denied the presence of Russian troops in Donbas, spoke favorably of the aggressor state, and praised the Soviet past. Many of them also participated in the events of the "Russian spring" of 2014 (especially in Melitopol, where the most numerous pro-moscow rallies in the region occurred) or in the activities of the Party of Regions. Meanwhile, the remaining collaborators engaged in interactions with the enemy based on the factual realities of everyday life.

P. Berger and T. Luckmann, in their examination of everyday life as a sphere of social interactions, emphasize several interconnected aspects: the institutionalization and legitimization of social relations, as well as socialization and identification. It is in the process of their synthesis that subjective reality is born - the entire spectrum of a person's worldview - from dreams and fantasies to theoretical abstractions [1]. This is precisely why the issue of collaborationism may be morally uncomfortable for researchers. After all, no one knows how the residents of Zaporizhzhia, Lviv, or Kyiv would behave in the new reality if the Russian army reached these cities.

The immersion in the everyday life of the 'Russian world', sometimes even long before the annexation of Crimea, the invasion of Donbas, and the onset of full-scale aggression, manifests in various forms: "Victoria, 55-60 years old. A supporter of Russia since pre-war times. Her husband has been working in Russia for a long time. One of the first to receive a passport"; "Edik (Edward) Izyumov. Worked as a masseur, went to Russia to earn money... Edward's sister, Tatyana Izyumova, always said she was a child of the USSR. Her son vacationed in Crimea last year. Infinitely happy about the Russian world"; "the family of collaborators from Vodiane, Vasyliivka district, who

shone at the celebration in honor of Russia - mother Chorna (Uziakova) Iryna Oleksandrivna born on December 20, 1987, native of Orenburg Oblast, grandmother Uziakova (Solovyova) Nadiya Vasylivna born on July 19, 1962, native of Orenburg Oblast, aunt Pokalyuk (Uziakova) Svitlana Oleksandrivna born on March 5, 1984, native of Orenburg Oblast". Among the ranks of collaborators, there are many migrants from territories occupied by the Russians a decade ago: "Tatyana Limova, moved to live in Melitopol from the occupied Luhansk seven years ago. An ardent supporter of the Russian world".

Overall, the proportion of individuals with experience in labor migration to Russia, at first glance, is not very high (90 "respondents", or 6.4% of their total number). However, within various socio-professional categories, this indicator is distributed very unevenly. For example, out of seventeen top businessmen in Melitopol who sided with the enemy, ten worked in senior positions in Russian companies at different times. With a high degree of probability, it can be argued that many of them were recruited by Russian special services. After the occupation, top collaborators were able to preserve and significantly increase their assets, focusing on restructuring local engineering for the needs of the enemy and developing connections with the Russian military-industrial complex.

Particular attention deserves family collaborationism - the involvement of individuals in various forms of interaction with Occupiers, including both blood relatives (father, mother, son, daughter) and relatives by marriage (husband, wife, mother-in-law, father-in-law). The results of our study indicate that 27% of collaborators cooperate with the Russians as entire families. On the one hand, these could be family clans around which powerful financial-industrial groupings have developed. For example, the family of Y. Balitsky was a powerful center of political influence in Melitopol for many years, forming its own social capital, which in its structure resembles that of the Patnam clan [13]. Around them, social networks emerge based on personal loyalty, cunning, and opportunism, declarations of pro-Russian sentiment, and the high value of patron-client relationships.

On the other hand, it is about entirely ordinary families who consciously collaborate with the enemy to improve their socio-economic positions. One typical example is the Lepikhov family from the village of Terpinia in the Melitopol district. The locomotive engineer Stanislav Lepikhov continued to work on the railway after the arrival of the occupiers, transporting military equipment and ammunition. His wife Oksana, along with her brother's wife, delivered hot food to Russian soldiers at checkpoints, and later opened her own cafe in a commandeered premises and even secured a position as a "teacher". Meanwhile, their son Bohdan joined the Russian police force. During the occupation, the family purchased a new car, vacationed in Moscow, and vehemently opposes the return of Ukrainian authorities. Remarkably, many families of collaborators embarked on their path to state betrayal in the early hours of the occupation. For instance, the Denysov family in Melitopol, en masse, participated in looting chain supermarkets early on the morning of February 25, 2022, and subsequently, its head, Oleksandr Denysov, enlisted in the ranks of the Russian army [21].

It is worth noting that family collaborators aren't just on the social fringes; they are often affluent and successful individuals. Take, for instance, the Perelyhin family from Melitopol. Since the early days of the occupation, the father, Ihor Perelyhin, a prominent chess player and entrepreneur, has been actively involved in Russian propaganda TV shows, leading the so-called "chess federation" in the occupied part of the Zaporizhzhia region and later taking control of a meat processing plant seized from its rightful owners. His son, blogger Vladyslav, publicly expressed pro-Russian views even before the war and has connections to another collaborator, Viktor Kharchenko, the owner of the "Bravo Tour" travel agency. Overall, in the upper echelons of traitors in southern Ukraine, there is a trend towards forming family-clan alliances, driven by intense competition for resources with newcomers from Russia.

Another aspect of this issue involves individuals with close relatives in Russia who maintain regular contact despite the ten-year war against Ukraine (132 individuals, or about 10% of the total). However, this percentage could be even higher as relevant information wasn't obtained from all sympathizers of the Russians. Since 2014, such contacts not only reveal the deeply anti-Ukrainian stance of our fellow citizens but also serve as a basis for their active recruitment by Russian special services. This is corroborated by court statistics on sentences for collaborators, with the vast majority involved in cooperation with Russian special services through their family networks.

The next important aspect of our research focuses on the forms and practices through which local residents collaborate with the enemy. In this context, we are specifically examining active and initiative-driven forms of collaborationism, where individuals willingly aid the aggressor in various ways - from disseminating propaganda materials on their social media platforms to assuming "authoritative" positions. Table 1 shows general forms and practices of collaborative activity among the population of Southern Ukraine.

Table 1: Forms and practices of collaborative activity among the population of Southern Ukraine

| Form of activity  | Number of individuals | Percentage |
|---|-----------------------|------------|
| Occupying "positions" in the bodies of occupational authorities and law enforcement structures  | 343                   | 25,0       |
| Public expressions of support for occupiers at the household level                              | 565                   | 41.2       |
| Financial and economic cooperation  | 276                   | 20.1       |
| Assistance in finding housing   | 60                    | 4.4        |
| Informing on pro-Ukrainian activists, ATO veterans, and their families                          | 114                   | 8.3        |
| Co-habiting with occupiers  | 78                    | 5.7        |
| Participation in mass propaganda events as a private individual or as part of "official" duties | 767                   | 55.9       |

The data presented in Table 1 indicate that participation in Russian propaganda remains the primary form of collaborationist activity and a mandatory minimum 'program' for those who defect to the enemy's side (56% and 68% respectively). The forms, methods, and techniques of agitation for the "Russian world" are nearly countless, but their main goal is to create a sense of artificial normalcy among people living under occupation.

As it is known, the construction of everyday life occurs through the objectification of life in things and symbols that compel individuals to conform to certain standards, allow for the typification of emotions and their transmission to others, and integrate various spheres of daily life [1]. Artificial normalcy is the enemy's attempt to pass off the desired as real, because even after two years of its rule, the majority of the population does not accept Moscow's orders. The strategic objectives of the Russians in their communication policy remain unchanged - to foment hatred towards Ukraine, which allegedly always pillaged and exploited the southern regions and now "shells" peaceful civilians. Illustrative is the incident involving the deaths of nearly a dozen civilians due to the dropping of a Russian-guided bomb on the occupied city of Tokmak, Zaporizhzhia Oblast, in April 2024, which Russian propagandists attempted to portray as a missile strike by the Ukrainian Armed Forces. Simultaneously, a picture of peaceful and happy life in "liberated" Novorossiia is being painted - familiar Soviet-style community workdays for the older generation, "letters to defenders" in captured schools,



repairs to water mains with the help of “bosses” from Yaroslavl, and so forth.

However, over the past two years, there has been a certain decrease in the indicators of economic collaborationism (from 31% to 20%). This is attributed to several factors. Firstly, unfortunately, there is a significant expansion of the circle of individuals who, to maintain their usual way of life (including engaging in entrepreneurial activities), are compelled to register and pay taxes according to the norms of the occupation legislation. Secondly, the longer the occupation lasts, the fewer opportunities there are to avoid engaging in economic relations with the ruling regime. The only alternative remains an extremely complicated and expensive departure to free Ukraine. Additionally, there is also a slight decrease in the number of individuals engaged in “snitching” and assisting the enemy in identifying pro-Ukrainian activists, ATO veterans, and other “unreliable” individuals. This dynamic should not deceive us, since the moral degradation of the population in the occupied territories only intensifies, as we will further demonstrate below.

However, amidst the significant reinforcement of Russian repressive agencies and special services in the occupied Ukrainian territories, the role of individual “informants” has somewhat diminished, but primary collaboration with enforcers remains a prerequisite for entry into the collaborator community. Special emphasis is placed on the tasks carried out by “plainclothes individuals”, particularly senior figures in buildings and neighborhoods. During the pre-occupation period in Ukraine, representatives of this relatively unstructured category did not hold a significant role in social life, and heads of neighborhood committees in the private sector did not receive even minimal rewards from municipalities. However, this was not universally true. Specifically, in Melitopol and Berdiansk, local financial-industrial groups led by Y. Balitsky and O. Ponomariov systematically engaged with these individuals based on the principle of electoral patronage - relationships that entail the exchange of services between two parties of different status and power, where the client receives protection in return for loyalty and political support [10]. Through funds from parliamentary foundations, business-controlled funds, and local budgets, “ins” housing cooperatives saw the replacement of windows and doors, installation of children’s playgrounds, repair of access roads, and their leaders received personal bonuses from their patrons, among other benefits. This fostered the development of electoral “networks” that functioned effectively during elections and, following the arrival of the occupiers, were put to their service.

Indicators regarding the cohabitation of women with occupiers for the years 2022-2024 have changed only within the margins of statistical error (7.1% and 5.6%, respectively). Matters of love and sex are not criminalized in Ukrainian legislation; however, this form of collaborationism is typically closely associated with serious crimes. This includes obtaining positions in government bodies, “extorting” others’ businesses with the assistance of lovers who are military criminals, unauthorized appropriation of property (furs, residences, automobiles, valuables), as well as facilitating financial-economic activities (such as establishing trade, organizing “banking” affairs, re-registering legal entities under Russian legislation, and assisting in the placement and provision of occupant units).

A wealth of information about processes in temporarily occupied territories can be gleaned by analyzing changes in the socio-demographic characteristics of collaborators (see Table 2).

Table 2: Changes in the socio-demographic characteristics of collaborators in the years 2022-2024

| Social-demographic category | 2022 (N=500) | 202 (N=1400) |
|-----------------------------|--------------|--------------|
| Men                         | 33           | 53           |
| Women                       | 67           | 47           |
| 18-29 years old             | 11.6         | 18.3         |
| 30-44 years old             | 45.2         | 37.8         |

|                        |      |      |
|------------------------|------|------|
| 45-54 years old        | 29.8 | 30.8 |
| 55 years old and older | 13.4 | 13.1 |
| Urban population       | 50   | 67   |
| Rural population       | 50   | 33   |

From Table 2, several conclusions can be drawn. Firstly, collaborationism is fairly widespread in the temporarily occupied territories of Southern Ukraine, resulting in a tendency towards equalizing the representation of different socio-demographic categories among sympathizers with the enemy, in proportion to their overall distribution in the population. A clear example of this is the percentage of rural and urban collaborators, which currently roughly corresponds to the spatial distribution of residents in the occupied part of Zaporizhzhia Oblast. However, in cities where government bodies, key facilities, and institutions of the aggressors are concentrated, there are objectively greater opportunities for collaboration, facilitated by the higher anonymity of the urban environment and the possibility of blending in among tens of thousands of people.

Secondly, the significant increase in the proportion of men is linked both to the expansion of the contingent of occupational administrative and repressive structures and to the emergence of a new business environment operating under Russian laws. This environment often exploits assets stolen from legitimate owners, enriches itself through supplying the Russian military, speculation with agricultural products, and plundering the region. It is important to understand that collaborationist enterprises only receive meager benefits, as all major state orders in the “new regions” are fulfilled by structures controlled by Russian top oligarchs.

Thirdly, the significant increase in the percentage of young collaborators is alarming. Essentially, this marks the emergence of the second generation of collaborators – both through family-clan groups and through the recruitment of young men and women into pseudo-youth organizations such as “Movement of the First”, “Young South”, “Young Army”, and so forth. In this manner, the enemy not only prepares cannon fodder for the next waves of mobilization but also establishes a social base for the occupation regime and resistance to Ukrainian liberators in the future.

An important area of interest lies in analyzing the professional background of kremlin collaborators. Here, the situation appears rather intricate. On the one hand, Ukrainian legislation criminalizes numerous forms of economic interaction with occupiers, except, perhaps, routine physical and non-physical hired labor. On the other hand, when enemy soldiers have been stationed on your land for three years and a foreign flag flies overhead, people are confronted with an almost Hamletian dilemma – what social behavior is acceptable? And this is not merely a moral quandary of “to be or not to be” (assimilating into the new social order or remaining loyal to the Ukrainian state), but a matter of basic physical survival.

Table 3 shows changes in the areas of pre-war professional activities of collaborators in 2022-2024. But before delving into the analysis of the data presented in Table 3, it is important to note that nearly 8% of the total collaborators (or 110 individuals) were employees of the Zaporizhzhia Nuclear Power Plant, residing in the city of Enerhodar and its vicinity. The social structure within the nuclear power plant is highly intricate, influenced by various factors such as specialization, proximity to core production areas, and organizational units, necessitating further investigation. Moreover, information regarding the occupations of 31% of enemy sympathizers (430 individuals) remains elusive. This demographic often exhibits passive support for the enemy, typically manifesting through social media postings or participation in mass propaganda events like rallies, floral tributes, car processions on fictitious dates set by the aggressors, or asset collection drives. It is this widespread participation that creates the semblance of support for the occupying regime, intricately entwined within the patron-client networks established by aggressors in temporarily controlled regions.

Table 3: Changes in the areas of pre-war professional activities of collaborators in 2022-2024

| Social-professional category  | 2022 (N=500) | 2024 (N=860) |
|---|--------------|--------------|
| Education institution employees   | 48.9         | 17.5         |
| Employees of executive authorities and local self-government bodies           | 13.1         | 4.8          |
| Employees of law enforcement and regulatory authorities                       | 9.4          | 12.1         |
| Workers and officials   | 6.2          | 23.7         |
| Owners of small businesses, private entrepreneurs, and farmers                | 5.6          | 19.5         |
| Employees in the fields of culture, healthcare, social protection, and sports | 5.4          | 6.8          |
| Senior figures in buildings and neighborhoods                                 | 3.8          | 2.2          |
| Students  | 2.4          | 3.2          |
| Pensioners and unemployed individuals   | 2.1          | 5.1          |
| Others  | 3.1          | 5.1          |
| Total   | 100          | 100          |

From the data presented in the Table 3, two distinct waves of collaboration emerge. The initial wave, spanning approximately April to October 2022, predominantly comprised of disloyal officials and educators. During this period, Moscow actively orchestrated a spurious referendum on joining Russia, necessitating organizers (administrative staff) and operatives (so-called "district commissions", often derived from educational institutions akin to soviet times). The subsequent wave, commencing in early 2023, primarily encompasses lower-ranking officials (amidst bureaucratic expansion) and entrepreneurs (comprising business owners since Ukraine's era, who had temporarily ceased operations, alongside those who amassed wealth from "seized" commercial properties, manufacturing facilities, and other assets). Here, we witness a symbiosis between the bureaucratic and mercantile classes, driven by shared aspirations for social advancement and profit maximization, aligning closely with the occupiers' interests. Ultimately, individuals who previously aspired to modest roles, such as a technical worker aspiring to a department director position or a kiosk proprietor now overseeing a sprawling supermarket under the new regime, eagerly embrace their newfound authority.

Subscribers of the Telegram channel "Suki of Melitopol" offer a detailed account of what could be the most significant redistribution of property since the October Revolution and the Bolshevik occupation of Ukraine in 1917-1920. Specifically, in Zaporizhzhia Oblast, this process is orchestrated by individuals closely associated with Russian gauleiter Y. Balitsky. Within each occupation administration, departments for "ownerless property" have been established. Hundreds of individuals partake in this pillaging: local leaders, building supervisors, and heads of homeowner associations compile lists of vacant apartments and buildings; former employees of the city executive committee compile lists of industrial enterprises, public institutions, and commercial real estate properties whose owners have fled to free Ukraine; the "people's militia" scavenges through abandoned homes in search of gold and money; informant residents appropriate their neighbors' belongings, while numerous speculators sell stolen goods at half price under the protection of local law enforcement [8]. It can be anticipated that following the arrival of the Ukrainian army, the processes of reclaiming personal properties and real estates, particularly means of production in rural areas, will assume a

truly dramatic nature and will necessitate priority attention from the state.

When approaching the topic of collaborationism as a social ladder, it is important to note that attempts to gauge the speed of upward mobility through the prism of Western concepts may not always yield successful results. Moreover, our information regarding the true social-class status of collaborators before the war and after the occupation is not sufficiently comprehensive for objective reasons.

Table 4: Movement of collaborators between socio-professional categories after the Russian occupation (2024, N= 1351)

| Social-professional category                        | Remained in their social group |                | Transitioned to another social group |                |
|---|--------------------------------|----------------|--------------------------------------|----------------|
|   | Individuals                    | In percentages | Individuals                          | In percentages |
| Government officials and managers of various levels | 35                             | 85             | 7                                    | 15             |
| Educators   | 122                            | 83             | 25                                   | 17             |
| Healthcare, cultural, and sports workers            | 47                             | 83             | 10                                   | 18             |
| Law enforcement personnel                           | 76                             | 75             | 26                                   | 25             |
| Civil servants                                      | 56                             | 48             | 60                                   | 52             |
| Laborers  | 12                             | 15             | 68                                   | 75             |
| Pensioners, students, and unemployed individuals    | 41                             | 28             | 104                                  | 72             |
| Private entrepreneurs                               | 134                            | 82             | 31                                   | 18             |
| Unknown social-professional group                   | 174                            | 41             | 256                                  | 59             |
| Total   | 764                            | 60             | 587                                  | 40             |

As it is observed in Table 4, among collaborators, two processes are concurrently unfolding - maintaining their socio-status positions in higher social groups and active vertical intergroup transitions in lower social categories. At the upper echelons, among the newly appointed Russian officials, this movement primarily stems from personal conflicts rather than structural shifts. Some may have clashed with the new leadership, relocated, or aligned themselves "in the basement" with the pro-Russian factions. Overall, the enemy's managerial cadre still maintains a sufficiently high level of cohesion, and widespread replacements of local turncoats with newcomers are likely still forthcoming.

However, approximately one-eighth of former teachers, doctors, and cultural workers have ascended to positions of authority. Each of them served the occupiers in their own capacity - disposing of and burning Ukrainian literature, treating wounded soldiers and officers with sympathy, arranging concerts for imperial celebrations, and so forth. Generally, among budget workers-collaborators, there are prevailing attitudes described by one of the authors of the Telegram channel "Mariupol. Sprotyv": "Tamara Viktorivna Zubko voluntarily assumed the position of school director in the village of Berdianske. She has been collaborating with the occupiers since day one. Her lifelong ambition has been gaining managing position. She is very pleased with Russia's arrival, as it now provides the opportunity to vacation in various sanatoriums. Tamara's husband, Sasha Zubko, works in the Emergencies Ministry in Mariupol. Tamara says, "Finally, we will live well" [17].

At the same time, for 10% of former police officers, the change of state flags brought the opportunity to start their own businesses - adopting a Russian, semi-criminal style. Leveraging old acquaintances, connections in the criminal world, and unprecedented bribery from local gauleiters, they take control of abandoned enterprises, trading establishments, and household service facilities.

The social mobility of collaborationism is quite active among civil servants, 27% of whom managed to ascend one or two career steps higher and assume managerial positions, typically within the same institutions where they worked during the times of Ukraine.

Complex processes of collaboration are underway among workers. V. Tsyba and D. Novikov emphasize the shift in the nature of their employment - from permanent to temporary (or additional) - whereby individuals, while holding an official job, take on side jobs to increase their income. There is a phenomenon of "precarization", where the worker loses stable ties with his "basic" class. The more severe the situation of precariats, the easier it may become to mold them into a "potentially dangerous new class", oscillating between left-wing radicalism and a propensity towards fascism [18]. This thesis finds complete empirical confirmation, as in previous years we have repeatedly observed increased levels of support in this social group first for the Communist Party, and later for the Party of Regions and V. Yanukovich, against the backdrop of consistently high ratings of the authoritarian leader in contrast to democratic institutions. And with the Russian occupation comes fascism.

More than a quarter of former workers have been recruited into the ranks of the occupational police force, one in every five has transitioned to the social-humanitarian sphere, and one in every ten has taken positions in the Russian "government". It is reminiscent of the infamous Leninist principle - where every cook not only runs the state but also teaches children and catches "enemies of the people". However, the effectiveness of such labor activity is highly questionable. Similar processes can be observed among outsiders in the labor market - pensioners, the unemployed, and students. The arrival of the Russians has provided them with the opportunity to occupy, for the first time or again, fairly prestigious social positions in the fields of management and "law enforcement" (20%), education, medicine, and culture (16%), entrepreneurship (14%), and business (10%). Overall, we can observe that Pitirim Sorokin's theory regarding the emergence of marginal layers of the population onto the social forefront during epochal historical events remains relevant.

To conclude this part of our study, it is time to examine the changes in the socio-professional structure of collaborators in autumn 2022 and today.

Table 5: Ratio of representatives from various socio-professional categories among collaborators (as a percentage of the number of individuals with known occupations)

| Socio-Professional Category  | 2022<br>(N=500) | 2024<br>(N=1072) |
|--|-----------------|------------------|
| Employees of the occupational authorities and managers of various levels | 48.0            | 17.8             |
| Employees of repressive and punitive bodies                              | 27.7            | 18.4             |
| Civil servants   | No data         | 13.2             |
| Private entrepreneurs operating under Russian legislation                | 1.4             | 14.9             |
| Employees of "education"   |                 | 18.1             |
| Employees of occupational culture, medicine, sports                      | 17.9            | 7.3              |
| Owners of "seized" businesses  | No data         | 5.2              |
| Others   | 5               | 5.1              |

The data presented in Table 5 indicate that the cancerous tumor of collaborationism, unfortunately, is growing and encompassing

new social strata. While at the beginning of the occupation, collaborators were concentrated only in a few dysfunctional institutions (pseudo-government, law enforcement, and education), now they feel free in almost all spheres of public life, including the real economic sector.

#### 4 Discussion

Our scientific findings prompt a reevaluation of collaborationism as a reflection of criminal behavior and social dysfunction. É. Durkheim famously interpreted crime as a consequence of societal structural flaws and the disconnect between human aspirations and attainable opportunities. He argued that "the more a person has, the more he desires, since acquired goods only stimulate, but do not satisfy needs" [5]. External social control defines the boundaries of our needs, and any weakening of it precipitates a sharp crisis of values and norms. Anomie disrupts the customary motivation for social behavior, leading to a misalignment between goals and the means of achieving them, as later elaborated by R. Merton [12].

These propositions of the eminent sociologist found early confirmation in the initial hours of the occupation when, following the evacuation of rightful owners and Ukrainian law enforcement, widespread looting of commercial networks commenced in numerous cities, including Melitopol. Among the initial looters, there were former inmates, "chemists" (individuals serving sentences in labor camps), and troubled youths, among others. Items such as groceries, household appliances, electronics, and valuable alcohol were frequently plundered by entire families.

However, as the occupation progressed, a fundamental question arises: can we even speak of the relevance of social norms under the extreme conditions that three generations of our compatriots have not encountered since the Second World War? Ukrainians in the occupied territories are confronted with choices - whether to refrain from radical changes, remain in their homes and familiar social milieu, adapt their lifestyles to new exigencies, or abandon everything and relocate to free Ukraine.

Partially, the class theory of crime by the young P. Sorokin [15] does not fully apply, as we have seen above, the propensity to collaborate with the enemy is demonstrated by representatives of various social strata. However, their motivations differ - some aim to preserve the high social positions they acquired back in the days of Ukraine, while others, conversely, are rapidly, almost head over heels, striving upwards.

Meanwhile, the maximum dedication to the occupiers and the insatiable desire to be closer to power are well explained within the framework of E. Sutherland's theory of "criminal learning" [20]. Purposefully distancing from evaluative-moral judgments, the researcher asserts that a person becomes a criminal only due to special learning abilities, and his behavior is not abnormal or pathological. It is about Merton's "innovativeness", the ability to quickly adapt to new, unfamiliar everyday life that arises with the arrival of the Russian horde. A characteristic example is the ordinary seamstress from Melitopol, T. Limova, who "moved to Melitopol from the occupied Luhansk 7 years ago. A staunch supporter of the Russian world, she welcomed the occupation enthusiastically. In discussions, she often acts as a lively witness to Ukraine bombing Donbass for 8 years. At home, she set up a workshop for sewing military uniforms for the Russian army. Her clients are occupiers residing in the city. In cinematic terms, she is like a "Verka Modistka from Fox's Gang". Neighbors are morally suppressed and intimidated. How many such Verka Modistkas has the war and occupation brought to the surface of the social hierarchy in Melitopol?" Representatives of the social lower classes quickly assimilate the spirit of the new orders and, without formally changing their status, become perhaps the most influential people. However, after the arrival of the Ukrainian army, the fate of such "authorities" is very dismal - they will have to flee with the occupiers or endure persecution from their fellow countrymen for the rest of their lives.

Prominent Ukrainian jurist V. Tymoshenko, upon reevaluating the work of an American scholar, concludes the existence of two interconnected segments of society, one being law-abiding, and the other not [19]. This theory posits a conflict between legal and criminal cultures. Perhaps this theory holds true under stable socio-political conditions, but what happens when all institutions and organizations associated with the previous legal order disappear with the arrival of enemy forces? It is worth noting that the number of pro-Russian citizens in southern Ukraine has traditionally been quite large, and in the 2010s, according to our research, ranged from 15 to 25-30% of the total number of voters depending on the region [22]. But can we equate support for the eastern vector in economics and politics with readiness to cooperate directly with the enemy, committing crimes against own state? Especially since the pro-Russian electorate was predominantly composed of older individuals, who, due to their physical and moral condition, could not be overly active collaborators. Conversely, the situation of the conditionally pro-Ukrainian part of the population became quite complex, as the only law-abiding strategy of social behavior that the Ukrainian state could offer was evacuation. While in regions of active combat (Bakhmut, Avdiivka, Kyiv region in the early days of the war) this decision seemed to be the only possible one, in the South, which the enemy captured quite quickly, almost without encountering armed resistance, many felt that it was safer to stay at home.

Representatives of the sociological approach (D. Kressy, H. Van Hamel, and A. Prince) recognize economic factors as the primary determinant of crime - mass impoverishment, the contrast between poverty and wealth, the pursuit of illicit gain, and so forth [4]. The empirical data provided above do not support the idea of collaborationism solely as a movement of the social lower classes, as approximately one-third of collaborators with the enemy belong to the first to third social classes (according to J. Goldthorpe's classification [6]). However, workers and individuals who were not actively engaged in economic life before the war (pensioners, students, the unemployed) were able to significantly enhance their status positions compared to other social strata, thus partially validating this hypothesis.

The concept of subculture, introduced by American criminologist and sociologist A. Cohen, presents certain avenues for further exploration of collaborationism [3]. Within small social groups, shared cultural values are cultivated based on unity of perspectives ("we are one nation"), customs (vacations in Crimea), aspirations (photos on red square in Moscow), commercial behaviors (selling cherries or early vegetables to Russia), attitudes toward the external world ("everything Russian is the best"), uncritical reception of information, and heightened susceptibility to propaganda ("for thirty years, we were oppressed by the Bandera followers"). In the temporarily occupied regions of the Zaporizhzhia region, numerous such social cohorts exist: gardeners and employees of machine-building enterprises in Melitopol, proprietors of commercial greenhouse farms from Kamianka, Old Believers - descendants of settlers from the central regions of Russia in the Pryazovia district, and so forth.

Our observations suggest that the formation of small groups based on collaborationism begins within the family during school years. In the city's schools, within children's and youth communities, a pronounced ideological divide has emerged, echoing the sentiments of adults: 'Are you for Russia or Ukraine?' Children from pro-Russian families engage in conflicts, whether openly or discreetly, with their counterparts from pro-Ukrainian families. Pro-Ukrainian children, both at school and on the streets, find themselves in a subdued and embittered state. They too congregate in groups, driven by a profound youthful thirst for justice and retribution [16]. However, as the occupation regime consolidates its power, one can anticipate a closer scrutiny of the attitudes of young boys and girls by the occupiers. The Kremlin has already implemented a formidable information system to monitor "unreliable"

teenagers, and over time, pressure on the younger generation is likely to escalate.

Another crucial aspect to consider is the duration of the occupation and its impact on the prevalence of collaborationism. It is imperative to differentiate between voluntary cooperation with the enemy and forced compliance with new directives, often bordering on survival necessities (such as obtaining a Russian passport, without which residents of temporarily occupied territories are denied access to emergency medical assistance). Recently, in a bid to heighten people's reliance on their authority, the occupiers have actively "nationalized" ostensibly abandoned housing, vacated by those who have fled to free Ukraine. Faced with the prospect of losing their homes or apartments, individuals are compelled to return and register their property under Russian laws or risk losing it altogether. Consequently, a web of corruption emerges around the "confiscated" housing, leading to local officials, various power brokers, and auxiliary services of the occupiers. This perpetuates the economic foundation of collaborationism.

In conclusion, the scholarly discourse on the nature of collaborationism in the territories of Ukraine under Russian occupation is still in its nascent stages, and its culmination should involve the empirical validation of numerous domestic and foreign theoretical frameworks.

## 5 Conclusion

During our research, we have reached the following conclusions. Firstly, by the third year of occupation, collaborationism in the temporarily occupied territories of Ukrainian state unfortunately transitions from openly marginal social practice to an enforced social norm. The lives of local residents have been transformed into a daily moral referendum on the boundaries of acceptable interaction with the enemy. Given the criminal nature and governance methods of the Russian occupation regime, present-day collaborators increasingly resemble the enablers of the Nazis during the Second World War.

Secondly, significant factors contributing to allegiance to the enemy include both the ideological-political orientation of individuals and the diversity of adaptive practices based on family ties or prior experience of socio-labor activity within the aggressor state. One of the primary channels of collaborationism becomes the family, reflecting both a general trend towards the archaization of social life beyond the front lines and providing sufficient stability to bolster support for the occupation authorities. Additionally, attention should be drawn to the highly targeted social instruments utilized by the invaders in their dealings with various categories of collaborators: controlled access to social benefits (officials, law enforcement, and public sector employees), financial incentives (pensioners, the unemployed, seniors, and other participants in the social clientele ensuring regime stability at the micro-level), and promises of rapid career advancement (loyal youth).

Thirdly, we have identified alarming trends regarding the significant proliferation of collaborationism among various socio-demographic and socio-professional population categories. These trends indicate both an increase in collaboration with the enemy among new age cohorts (especially among the youth) and the emergence of a symbiosis between the petty-official and entrepreneurial classes, which have significantly improved their status and material conditions compared to pre-war times. In the long term, they may form the social basis of the occupation regime, the definitive eradication of which may extend for many years after the arrival of the Ukrainian army.

## Literature:

1. Berger, P., & Luckmann, Th. (1967). *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. Anchor: Penguin Books. from [https://web.archive.org/web/20191009202613id\\_/http://perflensburg.se/Berger%20social-construction-of-reality.pdf](https://web.archive.org/web/20191009202613id_/http://perflensburg.se/Berger%20social-construction-of-reality.pdf)

2. Chachava, V. (2016). Forms of Political Identity of Georgian Collaborationism in World War II. (*Unpublished doctoral dissertation*). Lviv National University named after Ivan Franko.
3. Cohen, A. (1955). *Delinquent Boys: The Culture of the Gang*. Glencoe, Free Press.
4. Demkiv, O. (2008). Deviant Aspects of Urban Space Organization: Conceptualizations and Research Experience. *Lviv University Herald. Sociological Series*, 2, 110-125.
5. Durkheim, E. (1966). Norm and Pathology. In A. S. Nikiforov (Ed.), *Sociology of Crime (Modern Bourgeois Theories)*. Progress.
6. Goldthorpe, J., & Marshall, G. (1992). The Promising Future of Class Analysis: A Response to Recent Critiques. *Sociology*, 26, 381-400. <https://journals.sagepub.com/doi/epdf/10.1177/0038038592026003002>, 25.09.2022
7. Horobets, V. (2018). Collaboration with the Enemy as a Forced Model of Behavior and Survival Strategy. *Military-Historical Meridian*, 3(21), 56-74.
8. "How We Were Robbed". Telegram Channel "Suki Melitopolya", July 30, 2023. [https://t.me/suki\\_melitopolya/707](https://t.me/suki_melitopolya/707)
9. Kalishchuk, O. (2023). The Phenomenon of Collaborationism in the Legal System of Ukraine: Historical Retrospective and Contemporary Challenges. *Litopys Volyni*, 28, 108-113. <https://doi.org/10.32782/2305-9389/2023.28.14>
10. Kostetska, L. M. (2021). Patron-Clientelism: Theoretical-Historical Approach. *Scientific Notes of V.I. Vernadsky Taurida National University. Series "Public Administration"* 32(4), 8-16. <https://doi.org/10.32838/TNU-2663-6468/2021.4/02>
11. Makeiev, S. (2017). Social Structures: Folds, Liminality, Solidarities. In S. Makeiev & S. Oksamitna (Eds.), *The State of Singularity: Social Structures, Situations, Everyday Practices* (pp. 42-66). Kyiv: Institute of Sociology of the National Academy of Sciences of Ukraine.
12. Merton, R. (2019). The Links of Social Structure and Anomie. In L. Humeniuk (Ed.), *Sociology: Anthology (from Origins to Present)*. Lviv State University of Internal Affairs.
13. Putnam, R. D., Leonardi, R., & Nanetti, R. (2001). Making Democracy. Traditions of Civic Engagement in Contemporary Italy. (V. Yushchenko, Trans.). Solomiya Pavlychko Publishing "Basics".
14. Sorokin, P. A. (2005). *Sociology of Revolution*. In Y. Yakovets (Ed.), Introduction. Publishing House "Territory of the Future".
15. Sorokin, P. A. (2006). *Crime and Punishment, Heroism and Reward: A Sociological Study of the Main Forms of Social Behavior and Morality*. Astrel.
16. "Students of School No. 15 in Melitopol". Telegram Channel "Suki Melitopolya". October 21, 2023. [https://t.me/suki\\_melitopolya/806](https://t.me/suki_melitopolya/806)
17. "They Write to Us..." Telegram Channel "Mariupol. Sprotyv", 21.04. April 21, 2024. <https://t.me/mrplSprotyv/38683>
18. Tsyba, V., & Novikov, D. (2017). *The Working Class in Ukraine: Current State and Opportunities*. (Arseneko, A., Ed.). Kyiv: Institute of Sociology of the National Academy of Sciences of Ukraine. [https://commons-com-ua.translate.google.com/uk/ukrayinske-robitnictvo/?\\_x\\_tr\\_sl=uk&\\_x\\_tr\\_tl=ru&\\_x\\_tr\\_hl=ru&\\_x\\_tr\\_pto=sc](https://commons-com-ua.translate.google.com/uk/ukrayinske-robitnictvo/?_x_tr_sl=uk&_x_tr_tl=ru&_x_tr_hl=ru&_x_tr_pto=sc), accessed 28.04.2024
19. Tymoshenko, V. I. (2021). Sociological Direction in the Study of Criminality (from the History of Political and Legal Thought). *Bulletin of Uzhhorod National University. Series "Law"*, 63, 32-36. <https://doi.org/10.24144/2307-3322.2021.63.5>
20. Tymoshenko, V. I. (2023). *Crime, Criminality, and Punishment in the History of Political and Legal Thought: Monograph*. 7BC.
21. "Went to Kill Ukrainians, but Wife and Stepdaughter Supported: a Whole Family of Traitors Identified in Melitopol". Ria-Melitopol, April 1, 2024. [https://ria-m.tv/ua/news/346656/pishov\\_vbivati\\_ukraintsiv\\_a\\_drujina\\_z\\_padcherkoyu\\_pidtrim\\_ali\\_u\\_melitopoli\\_identifikuvali\\_tsilu\\_simeyku\\_zradnikiv\\_\(foto\).html](https://ria-m.tv/ua/news/346656/pishov_vbivati_ukraintsiv_a_drujina_z_padcherkoyu_pidtrim_ali_u_melitopoli_identifikuvali_tsilu_simeyku_zradnikiv_(foto).html), accessed 28.04.2024
22. Zubchenko, O. S. (2021). Structuring the Electoral Space of the Zaporizhzhia Region in 2015-2020. *Social Technologies: Current Issues of Theory and Practice of Management*, 89, 69-81.

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## PROCESSES OF NEOLOGIZATION IN MASS MEDIA TEXTS DURING THE PERIOD OF THE RUSSIAN-UKRAINIAN WAR

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**Abstract:** The article holistically analyzes the neologisms from mass media texts, which are characterized in terms of communicative and pragmatic potential, emotional and evaluative load and role in the expressiveness of the text; it determines methods of creating new derivatives, it studies neosemanticisms, neographisms and grammatically modified prepositional-nominal forms of nouns in the context of language dynamics. It has been found that in the modern media space there is now a migration of colloquial vocabulary to the field of journalism, a convergence of written-literary and oral-spoken forms of communication, the pragmatic potential of which consists in the creation of emotional-evaluative, expressive and humorous-ironic speech situations. It was found that neoderivatives formed by various morphological methods take an active part in the process of neologization. Blending nominations, which mainly contain transliterated Russian words, show high productivity. The ironic and evaluative pragmatic intention is carried out by neo-semanticisms formed in a lexical-semantic way and neographisms related to the aggressor state.

**Keywords:** derivation; morpheme; parts of speech; vocabulary; slang; occasionalism; neosemanticism; neographism; mass media; Ukrainian language.

### 1 Introduction

Modern society is characterized by the prevalence of various forms of public communication, of which media communication is a crucial component. As is well-known, the primary purpose of mass media is to transmit news messages. In the competition for the reader's attention, achieving communicative and pragmatic goals, as well as fulfilling the author's intentions, journalists often resort to creating effects of novelty and unexpectedness. This involves modeling new words, using well-known lexemes in unconventional communicative contexts, and incorporating nominations formed and adopted by users of social networks. Communication on these platforms frequently surpasses normative boundaries and is characterized by emotional, evaluative, and expressive language. While demonstrating high creativity and a penchant for irony, authors of publications often endeavor to adapt colloquial elements to meet the standards of written language. Considering this, it can be affirmed that the modern media landscape plays a significant role as an indicator of language dynamics.

Scientists have frequently chosen journalism, particularly Ukrainian journalism, as a corpus of research material for the multifaceted study of modern media neology. Among the issues addressed are specific neologisms from the late 20th and early 21st centuries in Croatian [14], Ukrainian semantic innovations from the early 21st century [12], their functional and pragmatic potential [15], structural and semantic parameters of neonominals formed by non-productive methods [1], prefix innovations [6], expressive functions, and features of neologisms and occasionalisms in Ukrainian newspaper discourse [9], as well as the typology, semantics, and linguistic stylistics of lexical innovations in modern Ukrainian mass media [10]. Equally compelling is the description of youth neologisms and slangisms observed in social networks [11]. Works dedicated to

the study of innovations in various languages provide relevant material. This perspective is supported by S. Sultanbekova, M. Anafinova, A. Seidikenova, A. Bizhkenova, and Z. Tleshova, who proposed a functional-pragmatic analysis of dominant forms of neologisms in English and French, selected from literary and newspaper texts spanning 2010–2022 [13].

The process of neologization is studied in linguistic works that address narrower thematic scopes. In this context, it is pertinent to mention publications characterizing the terms coined for Covid-19 across various languages due to the influence of external factors, particularly the global pandemic [4; 7; 17]. Recent developments in Ukrainian language also focus on emerging feminisms, notably in the media space. Specifically, new terms for women based on profession, type of activity, or specific behavior have been analyzed in terms of their lexical-semantic and derivational features, as well as their cognitive implications [8]. Research examining derivational norms of specific words sheds light on these issues. Notably, K. Horodenska's article describing the morphological and word-formation norms of borrowed adjectives, situated within contemporary trends of Ukrainian word formation, is particularly intriguing [3].

The announced list of scientific achievements reveals a significant level of study of the problem; however, it does not cover all aspects and nominations comprehensively. Currently, amidst the active phase of the Russian-Ukrainian war, journalists strive to provide comprehensive coverage of front-line events and compete for reader attention using various linguistic devices in their publications. This includes not only neoderivatives formed through various morphological methods but also neosemanticisms, neologisms, and certain grammatical modifications. While modern linguistics has examined some innovations from this period [16], their number is constantly increasing, highlighting the ongoing relevance of further research.

*The purpose of the article is to comprehensively analyze neologisms from media texts, characterize them in terms of their communicative and pragmatic potential, emotional and evaluative impact, and their role in enhancing textual expressiveness. The study aims to determine methods for creating new derivatives and investigate neo-semanticisms, neologisms, and grammatically modified prepositional-nominal forms of nouns within the context of language dynamics.*

### 2 Materials and Methods

Achieving the goal and objectivity of the conclusions was facilitated by the method of observation, which was used to identify the latest word-forming tendencies inherent in recent derivatives. An integral component of the methodological framework of the study was the descriptive method, which characterized the primary morphemes involved in creating neolexemes and focused attention on non-morphological aspects of word formation. The structural method aimed to identify the specifics of derivational affixes and their role in constructing new words, as well as determining the qualifying features of neonominals formed through lexical-syntactic methods, neosemanticisms, and neologisms. The method of functional analysis enabled the discovery of the functional purposes, communicative-pragmatic aspects, and emotional-evaluative features of innovations during the Russian-Ukrainian war period.

### 3 Results and Discussion

The neologization of language is an active process that never slows down and gains intensity during periods of economic, political, scientific, technical, and other societal transformations. The full-scale invasion of Russia on February 24, 2022, became a significant external factor that fundamentally changed the lives of Ukrainians and profoundly influenced changes in their

communication. On that day, news of Russian armed aggression dominated the front pages of global newspapers, and since then, it has occupied a substantial portion of Ukrainian media space. Since the onset of the active phase of the war, the language of mass media has seen the introduction of new lexemes, updates and expansions in the semantics of well-known terms, and some words have undergone orthographic revisions. L. Pidkamina outlines the process of neologization as follows: "individual use of a neologism → socialization of a new lexeme (acceptance by society) → lexicalization of the neologism (integration into the language system)" [10, p. 146]. We find the sequence proposed by the researcher fully justified, supported by the analyzed language material. One crucial aspect of studying new terms is establishing principles for their examination. The selected body of empirical data allows us to highlight: 1) word-forming innovations primarily based on established derivational models; 2) neo-semanticisms, where lexemes expand their semantic structure through reinterpretation of reality, often driven by associative relationships and lexical-semantic processes; 3) orthographic innovations (neographs), where word spellings change under external influences; and 4) grammatically modified prepositional-nominal forms of nouns.

The neologisms presented in the media add fluidity to the texts. Several verbs and nouns formed with suffixes serve this purpose and aim to convey the author's intentions. Although some remain confined to social networks, they have already found their place in the small dictionary of neologisms and neosemanticisms compiled by the information agency "ArmyInform" (<https://armyinform.com.ua>, July 20, 2022). For example, such neoderivatives include the verbs *байрактарити* (*bayraktaryty*), *джевелініти* (*javelinyty*), *стінгерити* (*stingeryty*), *хаймарсити* (*haimarsyty*), which belong to a single word-formation type. They are motivated by nouns – names of weapons, aircraft, etc., items that assist the Ukrainian military in combatting the enemy. They share a common word-formation meaning, marking actions related to the destruction of occupiers. They also share the productive suffix *-y-* as a service formant, and all these innovations belong to the verb class. It is noteworthy that some of these words have expanded beyond their original contexts. For instance, the verb *байрактарити* (*bayraktaryty*) appeared in an advertising message for services offering reduced prices, as seen in: "*Beauty Hunter вже 3 роки!.. Це мало бути грандіозне свято. Але які часи, така й вечірка – нумо байрактарити ціни разом!*" ("*Beauty Hunter for 3 years! It was meant to be a grand celebration. But in these times, such is the party – let's bayraktaryty the prices together!*") (<https://beautyhunter.com.ua>, August 18, 2022). Of course, it's challenging to predict whether verbs like *байрактарити* (*bayraktaryty*), *джевелініти* (*javelinyty*), *стінгерити* (*stingeryty*), *хаймарсити* (*haimarsyty*) will remain in active use among Ukrainians after the war. However, as we can see now some of them even show signs of interthematic shifts.

Among the innovative verbs presented in the dictionary of the "ArmyInform" information agency, let us focus primarily on those that have entered the media scope. Currently, there is a noticeable trend towards the formation and active use of lexemes motivated by anthroponyms. In particular, the surname of the French leader Emmanuel Macron served as the basis for modeling with the help of a suffix *-y-* and the verb *макронити* (*macronyty*) with the meaning 'to pretend to be a concerned person who supposedly cares about the problems of others, says a lot about it, but in reality his/her support is minimal.' It is noteworthy that the analyzed new formation is used both to indicate Emmanuel Macron himself and to designate other persons, compare: "*Президент Франції продовжує «макронити»*" ("*The President of France continues to 'macronyty'*") (headline) (<http://asn.in.ua>, June 15, 2022) and "*Немає ніяких сил спостерігати за тим, як Шольц «макронить» і як важко йому далось це рішення!*" ("*There are no forces to observe how Scholz 'macronyts' and how difficult this decision was for him!*") (<https://podcasts.nv.ua>, January 27, 2023). Together with this derivative, one word-forming type forms the word *шольциту* (*scholztyty*), motivated by the surname of the Chancellor of Germany, Olaf Scholz.

These two verbs give the expression a distinct stylistic coloring, especially if they function side by side: "*Будуть макронити і шольциту...*" ("*They will macronyty and scholztyty...*") (headline) (<https://siver.com.ua>, June 14, 2022) – the article is about the visit of the leaders of France and Germany to Ukraine and the planned meeting with the President of Ukraine Volodymyr Zelenskyi.

The scope of verbs that have acquired an ironic and mocking coloring was supplemented by the derivative *відкобзонити* (*vidkobzonyty*), motivated by the surname of the Russian singer Y. Kobzon. This word is actively used to report the loss of Russian troops or the liquidation of traitors of Ukraine: "*ЗСУ «відкобзонили» вже майже 106 тисяч окупантів: свіжі втрати ворога станом на 31 грудня!*" ("*The Armed Forces of Ukraine have already 'vidkobzonyly' almost 106,000 occupiers: fresh losses of the enemy as of December 31!*") (headline) (<https://www.volyn.com.ua>, December 31, 2023); "*«Відкобзонили» Воїна 22 січня боях під Бахмутом!*" ("*'Vidkobzonyly' Volina on January 22 in the battles near Bakhmut!*") (<https://antikor.com.ua>, January 27, 2023). The lexeme *відкобзонити* (*vidkobzonyty*) is formed with the help of official formants from *від-* (*vid-*) and *-y-* (*-y-*), which serves as a basis for considering them within the scope of prefix-suffix word formation.

The nominative formation of verbs is connected not only with proper names, but also with common names. Derivatives of this type include the word *могілізувати* (*mohylizuvaty*) with the meaning 'to destroy the male population of Russia, which fell as a result of mobilization actions for the war in Ukraine.' In this neoderivative, two letters were intentionally replaced (compare: *мобілізувати* (*mobilizuvaty*) and *могилізувати* (*mohilizuvaty*) (to bury in English) with a hint of a connection with the noun *могила* (*mohyla*) (grave in English) and an indication of what awaits the enemy who sets foot on Ukrainian soil: "*ЗСУ могілізували рекордну кількість військових рф за добу!*" ("*The AFU mohylizuvaly a record number of Russian soldiers per day!*") (headline) (<https://ua.news>, December 12, 2022). The selected word is formed with the help of the productive service formant *-yva-* (*-yva-*), which is attached to the creative base by means of the interfix *-iz-* (*-iz-*). In addition to the personal forms, the analyzed verb is used in an impersonal sense, which helps to shift attention from the perpetrators of the action to its result: "*На Луганщині «демлітаризовано» і «могілізовано» це одного кримінального злочинця, засудженого в підмосков'ї за вбивство!*" ("*In Luhansk region, another criminal convicted of murder in the Moscow suburbs was 'demilitarized' and 'mohylizovano'*") (<https://armyinform.com.ua>, October 04, 2022). We would like to comment on the verb *демлітаризовано* (*demilitarized*), which has undergone semantic changes, as evidenced by its design using quotation marks. As you know, the demilitarization of Ukrainians, according to the Russian authorities, became the goal of a full-scale invasion of Ukraine. In the above example, the analyzed lexeme realizes an ironic meaning.

The verbal noun *могілізація* (*mohylizatsiia*), in which the role of a derivational morpheme is performed by the borrowed suffix *-аці(я)* (*-atsi(ia)*), does not violate the established word-formation scheme. The absence of this lexeme in lexicographic works does not stand in the way of its use in modern journalism: "*Захисники України продовжують «могілізацію» РФ та нищать загарбників, які прийшли на нашу землю з війною!*" ("*The defenders of Ukraine continue 'mohylizatsiuiu' of the Russian Federation and destroy the invaders who came to our land with war!*") (<https://www.unian.ua>, January 19, 2023). The analyzed lexeme is used in contexts not only about the occupiers who have already died, but also about Russians who are planned to be involved in military operations in Ukraine, for example: "*Мобілізованих у РФ проводжали на «могілізацію» пісню Мозилевської!*" ("*Those mobilized in the Russian Federation were escorted to the 'mohylizatsiuiu' with the song of Mohilevska!*") (<https://news.obozrevatel.com>, October 06, 2022).

The domain of neologisms is motivated by the derived verb *могілізувати* (*mohylizuvaty*) the passive participle *могілізований* (*mohylizovanyi*), which is formed with the help of a Ukrainian resource – the productive suffix *-н-* (*-n-*), for example: “«**Могілізовані**» росіяни вже на фронті” (“**Mohylizovani** Russians are already on the front” (headline)) (<https://wz.lviv.ua>, September 28, 2022); “На російських кладовищах бракує місць для «**могілізованих**» окупантів, їх «пачками» закопують в Україні” (“In Russian cemeteries, there is a shortage of places for **mohylizovanykh** occupiers, they are buried by the dozen in Ukraine”) (<https://www.5.ua>, October 14, 2022). Incidentally, we note that the specified lexeme can fall from its usual attributive sphere into the noun sphere, performing the role of a subject or controlled member of a sentence. The specified transposition processes indicate the manifestation of one of the varieties of the morphological and syntactic method of word formation – fusion. For example: “В Росії готуються до нових **могілізованих**: у Москві на виставці ритуальних послуг влаштували конкурс з одягання покійників на швидкість” (“In Russia, they are preparing for the new **mohylizovanykh**: in Moscow, at the funeral services exhibition, a competition was held to dress the dead for speed” (headline)) (<https://cripo.com.ua>, November 04, 2023).

Complex nominations belong to the circle of emotionally colored units. The two-root lexeme *свіжозмогілізований* (*freshly mohylizovanyi* (*freshly mobilized and buried in English*)), formed by a lexical-syntactic method (fusion) presented in the press requires a separate comment: “Свіжозмогілізовані чобіки розстрілюють білорусів” (“**Freshly mohylizovani** chmobyky shoot Belarusians”) (headline)) (<https://volga.lutsk.ua>, November 06, 2022). The peculiarity of this word is that its first component *свіжо-* (*freshly*) has a hidden temporal feature, as it indicates a recently performed action and is semantically correlated with the temporal adverb *щойно* (*just now*). It is noteworthy that the second part as a separate word is presented only in the prefix-less form of the imperfect form *могілізований* (*mohylizovanyi*), which was discussed earlier. On the other hand, within the framework of a complex nomination, it has a *свіжозмогілізований* (*freshly mohylizovanyi*) perfective form, in the implementation of which the prefix *з-* (*-z-*) takes part.

The occasional character is revealed by the verb *залкоголізований* (*zalkoholizovanyi*) presented in the Ukrainian-language media space, which not only indicates the tendency of non-literary elements to penetrate into the field of journalism with the aim of enlivening the text, bringing it closer to the reader, attracting his/her attention, but also violates the established pattern of word formation of this part-language class: “У сусідньому м. Бресті 2 залкоголізованих рашистських чобіків застрелили з пістолета місцевого білоруса” (“In the neighboring town Brest, 2 **zalkoholizovanykh** chmobyky shot local Belarusian with the pistol”) (<https://volga.lutsk.ua>, November 06, 2022). As you know, in the Ukrainian language, a derivational pair to a derived participle is traditionally formed by a constructive verb, for example: *опрацюва-н-ий* ← *опрацюва-ти* (*opratsiuv-a-n-yi* ← *opratsiuv -aty*), *знешкодж-ен-ий* ← *знешкод-ити* (*zneshkodzh-en-yi* ← *zneshkodyt-y*), *викона-н-ий* ← *викона-ти* (*vykona-n-yi* ← *vykona-ty*). However, the analyzed neolexeme goes beyond this regularity: its formation is not related to a structurally and semantically related verb, since it does not exist in the Ukrainian language, so we have to talk about the prefix-suffix way of creating this word. In the proposed context, the adjective *залкоголізований* (*zalkoholizovanyi*), in addition to discrediting the Russian occupiers and pointing to their passion for alcoholic beverages, reveals a significant expressive potential, which is enhanced by the secondary designation of the aggressors – *рашистські чобіки* (*rushists chmobyky*).

One of the models for the creation of derived words is the reduction of the elements of creative bases and the addition of specific post-root service formants. Many nominations of this type serve as a means of expressing humor, which helps Ukrainians to survive the terrible wartime, to resist Russian

propaganda, and to preserve their morale. Realizing that the enemy cannot be underestimated, the Ukrainian people at the same time resort to simulating tokens that serve as a means of humiliating the occupiers and making fun of them. As you know, the carrier of the main word-forming meaning is the creative base, and the accompanying feature is implemented by the service formant. Guided by this, we will analyze some nominations that went beyond the literary and written norms inherent in journalism, but clearly convey the negative attitude of Ukrainians towards the Russian aggressors. Among such innovations are *фашики* (*fashyky*), in which, on the border of the morpheme seam, we can trace the reduction of the base (from fascist) and the addition of the suffix *-ук-* (*-yk-*), which in the Ukrainian language has a high degree of compatibility with bases of different meanings. Its functional purpose is to model the word-forming type ‘names of persons’. For example: “«Російські **фашики** поїдуть додому в мішечку»: морпіхи ЗСУ розбили підрозділ окупантів” (“**Russian fashyky** will go home in a sack: Marines of the Armed Forces of Ukraine defeated the occupying unit” (headline)) (<https://www.5.ua>, April 18, 2022). In this sentence, the sarcastic and mocking tone of the entire statement is reinforced by the stylistically marked noun *мішечку* (*sack*). We would like to mention that recently the Russians have been actively using the terms *фашики* (*fashyky*) and *фашисти* (*fascists*) in their communication to refer to Ukrainians, implementing a manipulative strategy and justifying the war, which was allegedly started because of the rampant Nazism and fascism in Ukraine. In particular, in the formulation of the goal of a full-scale invasion, in addition to the previously mentioned *демільтаризація* (*demilitarization*), there was also the word with the prefix *де-* (*de-*) – *денацифікація* (*denazification*).

The scope of substantive nouns with the suffix *-ук* (*-yk*) was supplemented by the expressive noun *рашик* (*rashyk*), which arose from the derogatory name of Russia – *раша* (*rasha*): “Після перебування тут **рашиків** (так називають місцеві жителі окупантів) скрізь руїни, міни, нарміт землянки та оборонні споруди” (“After the stay of the **rashyky** (that’s how they are called by the local residents), there are ruins, mines, dugouts and defensive structures everywhere”) (<https://www.nove.in.ua>, December 14, 2022). Synonymous with this word is a derivative with the productive suffix *-ист* (*-yst*) *рашист* (*rashyst*), motivated similarly to the previously analyzed slangism also by the noun *раша* (*rasha*): “**Рашисту** допитували жінку чотири рази” (“**Rashysts** interrogated the woman four times...”) (<https://www.nove.in.ua>, December 14, 2022). A similar model of creation is inherent in the recently activated word “*лукашисти*” (“*lukashysts*”), which initially nominated representatives of Belarusian law enforcement agencies – supporters of the self-proclaimed president Oleksandr Lukashenko, and now has expanded its lexical range, functioning to denote the military that supports Russia in its aggressive policy against Ukraine or applies punishment to those, who approves of the Ukrainian people: “Жителі Самарів переконані, їхні родичі та близькі із Білорусі зі зброєю на українські землі не підуть, зробити це можуть хіба **лукашисти**” (“The residents of Samara are convinced that their relatives and friends from Belarus will not go to Ukrainian lands with weapons, only **lukashysts** can do it”) (<https://ourlife.org.ua>, January 28, 2023). Although the anthroponym *Lukashenko* is at the basis of the creation of the derivative *лукашист* (*lukashyst*), the word also realizes another hidden meaning, denoting people by nationality – we are talking about Belarusians. Incidentally, we note that in the process of derivation, the creative base was truncated (*lukash-*).

The slangism *мобік* (*mobik*), formed with the help of the suffix *-ік* (*-ik*) from the substantive adjective *мобілізований* (*mobilizovanyi*), has a mocking-ironic tone, the base of which has undergone truncation (*mob-*). In the mass media, this noun rarely functions in the singular, it is mostly used in the plural and placed in quotation marks, for example: “Зараз росіяни використовують Білорусь як полігон для навчання своїх **«мобіків»**” (“Currently, the Russians are using Belarus as a

training ground for their *'mobikiv'*") (<https://www.unian.ua>, December 16, 2022).

The sphere of negatively colored derivatives includes the synonymous counterpart of the nomination *мобік* (*mobik*) – the lexeme *чмобік* (*chmobik*), which in its meaning contains an emotional and evaluative component and shows signs of dual motivation. On the one hand, it is appropriate to associate the analyzed nomination with the phrase partially mobilized, the occurrence of which coincides with the so-called *частково мобілізований* (*chastkovo mobilizovanyi*) of Russians. By the way, the analytically presented semantic correlate of the slangism *чмобік* (*chmobik*) is also often used in contexts with the aim of giving them humor, and in some places it is used as an element of a language game: “«*Частково мобілізовані*» росіяни прибувають на фронт *частково одягненими* – *Наталія Гуменюк*” (“*‘Chastkovo mobilizovani’ Russians arrive at the front chastkovo (partially) dressed – Natalia Humeniuk*”) (headline) (<https://armyinform.com.ua>, October 18, 2022) – the repetition of the word is *частково* (*partly*) aimed at expressing the characteristics of what was said and strengthening the impression of it. The noun *чмобік* (*chmobik*) should be interpreted as a complex abbreviated word formed by the abbreviation-suffix method. The structure of this abbreviation is mixed, it consists of an initial fragment – the sound of *ч* (*ch*) (the initial consonant of an adverb *частково* (*chastkovo*)), a fragmentary asemantic component *моб-* (*mob-*) and the suffix *-ік* (*-ik*) as a morpheme transliterated from the Russian language. In the Ukrainian language, derivatives of this type usually contain the suffix *-ук* (*-uk*) in their structure, the morpheme *-ік* (*-ik*) is rarely represented, some foreign language units have it, compare: *передовик* (*peredovyk* (*frontline worker*), *медик* (*medic*), *фізик* (*fizyk* (*physicist*), *історик* (*istoryk* (*historian*), but *хімік* (*khimik* (*chemist*), *механік* (*mekhanik* (*mechanic*)). In the media texts of the neolexeme *чмобіки* (*chmobiky*) is written with and without quotation marks. The second option indicates its increasing popularity in the Ukrainian-speaking space, for example: “«*Чмобіки*» масово телефонують в Україну: цікавляться, як здатися в полон” (“*‘Chmobiky’ are calling Ukraine non-stop: they are interested in how to surrender to captivity*”) (headline) (<https://konkurent.ua>, October 16, 2022); “*Їх знову обманули: тюменські чмобіки почали бунтувати проти неадекватного командування*” (“*They were deceived again: the Tiumen chmobiky began to rebel against the inadequate command*”) (headline) (<https://24tv.ua>, December 08, 2022). On the other hand, the lexeme *чмобік* (*chmobik*) can be considered as a derived word of the initial-suffix variety. The initial fragment is associated with the initial sounds of the phrase *частково мобілізовані особи* (*chastkovo mobilizovani osoby* (*partially mobilized persons* in English)). We explain the actualization of the slangism *чмобік* (*chmobik*) in media communication by the fact that it refers to the well-known vulgarism *чмо* (*chmo* (*schmuck/moron* in English)), interpreted in the dictionary as “1. A person who represents nothing... 2. A mean, unreliable person” [5, p. 327]. Sometimes media people use a language game technique related to this slangism – capslockization, which consists in capitalizing part of the analyzed word, for example: “*На Харківщині поблизу Куп’янська бійці 92-ї бригади полонили першого ЧМОБІКА*” (“*In the Kharkiv region near Kupiansk, fighters of the 92nd brigade captured the first CHMOBika*”) (<https://censor.net>, September 27, 2022). In this way, an attempt was made to specially emphasize the correlation of the selected part with the vulgarism of the language. The specified technique serves as an emotional and expressive means of condensation of imagery, intertextuality, and also vividly realizes the author's intention, the linguistic design of which leaves the limits of normativity.

The scope of neo-nominals with the *чмобік* (*chmobik*) component is supplemented by lexemes formed by the method of word formation with the first part expressed by an evaluative noun, for example: “*На росії горе-чмобіки конфліктують з офіцерами росармії та б'ють їх*” (“*In Russia, hore-chmobiky have conflicts with officers of the Rosarmy and beat them*”) (headline) (<https://armyinform.com.ua>, November 13, 2022). In the new formations, the meaning of which is specified by a

geographical name transliterated from the Russian language, there is an increase in the negative coloring and the expression of parody: “*москвічі-чмобіки почали масово здаватися в полон*” (“*‘moskvichi-chmobiky began to surrender to captivity’*”) (headline) (<https://dyvys.info>, November 07, 2022).

According to the creative base and method of creation, close to the neolexeme *чмобік* (*chmobik*) is a derivative of *чмоня* (*chmonia*), used to denote a clumsily and absurdly dressed Russian prisoner of war, who became the hero of Internet memes: “«*Чмоня*» повернувся додому: полонений окупант, що прославився, потрапив до списку на обмін” (“*‘Chmonia’ returned home: the captured occupier, who became famous, got on the list for exchange*”) (<https://focus.ua>, June 29, 2022).

Recently, the neologism *чмобілізація* (*chmobilizatsiia*) motivated by the phrase *часткова мобілізація* (*chastkova mobilizatsiia*), has entered the media sphere. It is formed from the initial sound of the first word and a whole (not reduced) word: “«*Чмобілізацією*» назвав мобілізацію в Росії міністр оборони України Олексій Резніков. «Оскільки її назвали «частковою» мобілізацією, логічно скоротити його до «чмобілізація»», – пояснив міністр” (“*The mobilization in Russia was called ‘Chmobilizatsiia’ by the Minister of Defense of Ukraine Oleksii Reznikov. ‘Since it was called a ‘chastkova’ mobilizatsiia it is logical to shorten it to ‘chmobilizatsiia.’ the minister explained*”) (<https://vago.com>, October 01, 2022). Neonominals with a common component *чмо-* (*chmo-*) make it possible to talk about a word-forming paradigm formed in a relatively short time.

Among recent neoderivatives, a prominent place belongs to juxtapositions, which often go beyond the norms of the modern Ukrainian language and serve as a means of modeling a complex image. In the role of one of the parts of occasional neolexemes, there are transliterated Russian words. Of course, such graphic design violates the canons of Ukrainian orthography, but it makes it possible to more vividly convey the author's message, disdain for what was said, at the same time making it the semantic center of the message: “*Увага всього світу нині прикута до подій в Україні, до звірств, які тут чинять росіяни-«асвабдітелі»*” (“*The attention of the whole world is currently focused on the events in Ukraine, on the atrocities committed here by the Russians-‘asvabadiieli’* (*libertarians in English written in Ukrainian with Russian pronunciation*”) (<https://zpu.kr.ua>, June 16, 2022). A separate group of complex nominations consists of words that are characterized by graphic hybridization – writing in Latin and Cyrillic. The Latin-written component is mostly applied: “*Велике новорічне HIMARS-шоу, яке влаштували Збройні сили України мобілізованим рашистам у Макіївці, вже третій день не дає спокійно спати нашим сусідам на болотах*” (“*The big New Year’s HIMARS-show, which the Armed Forces of Ukraine arranged for the mobilized Russians in Makiivka, has been keeping our neighbors in the swamps awake for the third day*”) (<https://gazeta.ua>, January 03, 2023); “*Сьогодні Україна відзначає День державності та День Хрещення Київської Русі. Сьогодні ж по наших містах було випущено два десятки ракет. Ru-істерика?*” (“*Today, Ukraine celebrates the Day of Statehood and the Baptism of Kyivan Rus. Today, two dozen rockets were fired at our cities. Ru-tantrum?*”) (<https://aspi.com.ua>, July 28, 2022). Recently, juxtapositions have entered the media space, in which the letter Z plays the role of an application, established as an identification sign of the Russian military forces, as a trend in Russian social networks and as a symbol of the war in Ukraine: “*Кремль доручив регіонам влаштовувати акції на підтримку Z-армії РФ та Путіна*” (“*The Kremlin instructed the regions to organize actions in support of the Z-army of the Russian Federation and Putin*”) (headline) (<https://www.pravda.com.ua>, March 15, 2022). According to the same scheme, a complex nomination with the letter Z and a transliterated Russian part is built, which serves as a means of creating the effect of parody, mockery, for example: “*Z-асвабдітелі рузькага миру продовжують вбивати мирних громадян України, незважаючи на їх мову спілкування. Для них люди ніхто*” (“*Z-asvabadiieli of Russian*



peace continue to kill peaceful citizens of Ukraine, regardless of their language of communication. People are nobody to them") (<https://spilno.org>, March 23, 2022).

In the media texts of the war period, blending nominations were activated, in the structuring of which there are several lexemes written together – mainly transliterated Russian words. They serve as an element of the language game, created to name complex concepts with an indication of their content integrity and to give patterns some expressiveness: “Сьогодні, 9 листопада відзначається День української писемності. Це той етап самоусвідомлення, який викоринює міф про «адіннарод» та «мижебратья» з російським окупантом. Мова – це ідентифікація, потужна та ефективна зброя у протистоянні з ворогом” (“Today, November 9, is the Day of Ukrainian Writing and Language. This is the stage of self-awareness that uproots the myth of ‘adinnarod’ (onenation in English) and ‘myzhebrat’ia’ (wearebrothers in English) with the Russian occupier. Language is identification, a powerful and effective weapon in confrontation with the enemy”) (<https://www.056.ua>, October 09, 2022); “В Ізюмі на кладовищі знайдено понад безіменні 500 могил, деякі з них братські. Є поховання з дитячим віком 6–9 років. Більшість з них безіменні, на дерев’яних хрестах лише цифри. Деякі могили братські. Отакі «мижебратья»” (“In Izium, more than 500 nameless graves were found in the cemetery, some of them fraternal. There are burials with children aged 6–9 years. Most of them are nameless, with only numbers on the wooden crosses. Some of them are mass graves. These are ‘myzhebrat’ia’”) (<https://glavcom.ua>, September 19, 2022). Nominations such as *adinnarod* (*adinnarod*) (onenation in English), *мижебратья* (*myzhebrat’ia*) (wearebrothers in English), etc. formed in a lexical-syntactic way from Russian manipulative narratives, with the help of which supporters of Putin’s regime try to justify Russian aggression in Ukraine and insidiously pretend that they seek mutual understanding and peace.

Quite often you can hear how the Russians are showing off their most modern weapons, various inventions that supposedly have no analogues in the world, but in fact it turns out that all this is far from perfect. The Ukrainian media picked up the Russian narrative and not only use it as a transliterated blending with the meaning ‘something made up’, but also create derived units from it. For example, *аналоговнет* (*analogovniēt*) (there are no analogues in English) served as the basis for the derivative *аналоговнетний* (*analogovniētnyi*), structurally complicated by the productive suffix *-н-* (*-n-*), for example: *Рідкісний зразок чергової «аналоговнет» зброї окупантів було знищено на Луганщині* (“A rare example of another ‘analogovniēt’ weapon of the occupiers was destroyed in Luhansk region”) (<https://defence-ua.com>, September 02, 2023); “ЗСУ збили «аналоговнетний» БПЛА Zala” (“The Armed Forces shot down the ‘analogovniētnyi’ UAV Zala”) (headline) (<https://glavnoe.in.ua>, July 24, 2022); “Аналоговнетний російський військовий робот виявився іграшкою з AliExpress” (“Analogovniētnyi Russian military robot turned out to be a toy from AliExpress”) (headline) (<https://24tv.ua>, August 17, 2022).

The lexeme *затрудні* (*zatrydni*) (in 3 days in English) belongs to the expressive language tools formed by fusion, which gives the expression an ironic and sarcastic sound: “Як відомо, першочерговою метою «спецоперації» бункерного діда ерефії було взяти Київ «затрудні» та замінити українську владу на своїх маріонеток” (“As you know, the primary goal of the ‘special operation’ of the bunker grandpa Ereĭia was to take Kyiv ‘zatrydni’ and replace the Ukrainian government with his puppets”) (<https://mykyivregion.com.ua>, June 08, 2022).

In addition to derivatives formed as a result of merging several words without their structural change, media people use negative blending, within the boundaries of which certain modifications have taken place. Motivated by the lexemes *бомж* (*botzh*) (homeless in English) and *моджахед* (*mujahid*), the blending of the *бомж* (*botzh*) and *моджахед* (*mujahid*) shows such signs, which expresses a demeaning social assessment of the Russian invaders. It was

formed as a result of superimposing the noun *бомж* (*botzh*) on the first part of the word *моджахед* (*mujahid*) (*muĭ-): “Узрупвання орків навколо ЧАЕС постійно поповнювалося з території Білорусі, частини та з’єднання відходили в зону на перекомплектування і проводили там кілька днів, звіти знімалися нові браві бомжсахеда, і так по колу” (“The group of orks around the Chernobyl nuclear power plant was constantly replenished from the territory of Belarus, units went to the resupply zone and spent several days there, new brave *botmujahid* were there”) (<https://site.ua>, April 01, 2022).*

A number of derivatives of blending origin are supplemented by nominations formed with the help of overlap that occurred within proper names, in particular geographical concepts. For example, from the initial part of the lexeme *Зміїні* (*Zmiinyi*) (the name of the island), which is superimposed on the first part of the word *Чорнобаївка* (*Chornobaivka*) (a village in the Kherson region), the neo-nomenclature *Змієбаївка* (*Zmiiebaivka*) was formed, which indicates the repeated defeat of the enemy. The analyzed derivative denotes both the process of destroying the enemy and serves as a humorous secondary nomination for Zmiinyi Island, compare: “«Змієбаївка» триватиме, поки окупанти не розблокують порти України” (“‘Zmiiebaivka’ will continue until the occupiers unblock the ports of Ukraine”) (headline) (<https://defense-ua.com>, May 13, 2022) and “Кажуть, дух острова «Змієбаївка» дістався тимчасово окупованого Бердянська” (“They say the spirit of the island ‘Zmiiebaivka’ reached the temporarily occupied Berdiansk...”) (<https://www.slovoidilo.ua>, August 14, 2022).

Recently, the language of Ukrainian journalism has been filled with a lot of neo-semanticisms. Such derivatives include the words *мопед* (*moped*) and *балалайка* (*balalaika*), which are synonymous due to the acquired secondary meaning, denoting unmanned kamikaze drones attacking Ukraine. For example: “Сьогодніранці Київ та інші міста України атакували дрони іранського виробництва – Shahed, які за свій гідкий звук на підльоті до цілей вже отримали назву «мопеди»” (“This morning, Kyiv and other cities of Ukraine attacked Iranian-made Shahed drones, which for their disgusting sound on approach the targets have already received the name ‘mopeds’”) (<https://dev.ua>, October 17, 2022); “Чий «мопед»? Іран заперечує постачання зброї Росії, але у світі не вірять” (“Whose ‘moped’? Iran denies supplying weapons to Russia, but the world does not believe”) (<https://focus.ua>, October 28, 2022); “Летюча балалайка або повітряний мопед: що одесити і фахівці розповідають про іранські БПЛА Shahed-136” (“Flying *balalaika* or aerial *moped*: what do Odessans and experts say about Iranian Shahed-136 UAVs”) (headline) (<https://www.5.ua>, September 28, 2022); “Зараз ми маємо доступ до найсучасніших технологій світу. Порівнювати наше обладнання з цими літаючими «балалайками» не можна. Завдання цих балалайок – знищувати життя людей” (“Now we have access to the most advanced technologies in the world. You can’t compare our equipment with these flying ‘balalaikas’. The task of these *balalaikas* is to destroy people’s lives”) (<https://www.5.ua>, October 20, 2022). The reinterpretation of the original meaning of the *moped* nomination took place on the basis of sound characteristics: such flying objects, due to the presence of piston engines, emit very loud sounds during flight, reminiscent of a *moped*. They were called *balalaikas* because of their triangular shape, similar to this musical instrument. In the Ukrainian lexicography, the word *moped* is presented only with the meaning “pedal motorcycle; a light low-power motorcycle that also has a pedal drive” [2, p. 690]. The nomination *balalaika* has one meaning – “a Russian folk musical three-stringed instrument with a triangle-shaped soundboard” [2, p. 57].

The relation to the lexical-semantic derivation is revealed by the verbal marker of Russia – the lexeme *болото* (*swamp*), which is often used in the local plural form, hinting at the much later founding of Moscow compared to Kyiv: “На московських болотах істерика” (“Hysterics in the Moscow swamps”) (headline) (<https://bastion.tv>, April 07, 2022); “Плач на болотах. Негативний наступ другої армії світу” (“Crying in



the *marshes*. Negative attack of the second army of the world” (<https://www.unian.ua>, September 11, 2022). In the second sentence, in addition to the analyzed prepositional-nominal form, the emotional impact is enhanced by the secondary designation of the armed forces of Russia – the *друга армія світу* (second army of the world), as well as the adjective *негативний* (negative) used in unusual contextual conditions. The escape of the Russian invaders from the occupied territories is now called a negative offensive: “А російська армія, яка, за словами кремльського Фюрера «навіть ще не почала», робить «негативний наступ»” (“And the Russian army, which, according to the Kremlin Führer, ‘hasn’t even started yet,’ is making a ‘negative offensive’”) (<https://www.unian.ua>, September 11, 2022).

In the texts of the studied mass media content of the war period, the noun *утилізація* (utilization), which denotes the destruction of enemies, acquired an expansion of the meaning structure: “В Україні триває *утилізація* та демілітаризація російських окупантів. Лише за минулу ніч Збройні сили ліквідували 720 загарбників” (“In Ukraine, the utilization and demilitarization of the Russian occupiers continues. In the past year alone, our Armed Forces utilized 720 invaders”) (<https://expres.online>, January 04, 2023). The dictionary interprets the lexeme *utilization* only as “1. Using something for recycling. // Use of any waste or leftovers as raw materials, ready-to-cook products, fuel, fertilizer, etc. 2. In information processing systems, it is a procedure for viewing EOM and removing unnecessary data from it” [2, p. 1519].

The metaphorical epithets serve as a means of creating a negative image nomination of the top commanding staff of the Russian army and emphasizing their incompetence. The specified functional potential is realized by the metaphorically used adjective *червонокнижний* (redbook), interpreted in the dictionary only as “referring to the Red Book (about endangered species of plants and animals)” [2, p. 1597]. The use of analyzed neo-semanticism lends irony to the statement: “Російські генерали – *червонокнижні* *дебіли*, або чим нам вигідний Герасимов як командувач” (“Russian generals are *redbook morons*, or how is Gerasimov useful to us as a commander”) (<https://novynarnia.com>, January 27, 2023). The colloquial lexeme *дебіл* (*moron*) enhances the effect of looseness of speech and vulgarizes the context.

The neographisms are presented in the texts of Ukrainian newspaper journalism during the period of the active phase of the war, which implement two opposite trends. Proper names, in particular geographical concepts, the name and surname of the head of the occupying state, are usually written with a lowercase letter in order to give a negative tone to what was said, to express contempt: “Тепер програма має допомогти Україні здобути перемогу над *московією* на чолі з *володимиром путіном*” (“Now the program should help Ukraine to win over *moscow* led by *volodymyr putin*”) (<https://bastion.tv>, April 07, 2022); “У *московській* області *рф* новопризовані солдати влаштували справжні розбірки з офіцерами росармії через «імітацію» підготовки до війни” (“In the *moscow* region of the *russian federation*, newly recruited soldiers staged real conflicts with officers of the Russian Army due to the ‘simulation’ of preparations for war”) (<https://armyinform.com.ua>, November 13, 2022). Instead, general names related to Ukraine, its defenders who courageously defend their land, are drawn up as their own nominations: “Захищаючи Україну, загинув Герой з Тернополя Сергій Заблоцький” (“*Hero* from Ternopil Serhii Zablotskyi died defending Ukraine”) (<https://te.20minut.ua>, January 28, 2023). The word “*Victory*”, which is desired by the Ukrainian people, is written with a capital letter: “У нашої соборності – наша *Перемога!*” (“In our unity – our *Victory!*”) (headline) (<https://minre.gov.ua>, January 22, 2023); “Попереду – наша *Перемога!*” (“Ahead – our *Victory!*”) (headline) (<https://33kanal.com>, December 31, 2023).

A parodic effect is also acquired by some grammatical modifications, which include the prepositional-nominal form *на*

*росії* (*on russia*), actively used in the texts of Ukrainian journalism, which penetrated instead of the normative one *в росії* (*in russia*): “*На росії* матір та дружина заубилого окупанта судяться за його майно” (“*On russia*, the mother and wife of the deceased occupier are suing each other for his property”) (<https://www.5.ua>, February 09, 2023). It became a reaction to the consistent use of the compound in the Russian mass media *на Україні* (*on Ukraine*) instead of *в Україні* (*in Ukraine*). The form *on Ukraine* is usually used by pro-Russian propagandists in the context of non-recognition of Ukraine as an independent state.

#### 4 Conclusion

So, in the modern media space, there is a migration of colloquial vocabulary to the field of journalism, convergence of written-literary and oral-speech forms of communication, the pragmatic potential of which consists in creating emotional, expressive and humorous-ironic speech situations. Neo-derivatives formed in various morphological ways, as well as neo-semanticisms, neographisms and some prepositional-nominal forms, that have undergone grammatical modifications, take an active part in the process of neologization. The innovations of the period of the Russian-Ukrainian war not only represent dynamism in the lexical and word-forming systems, serve as a means of expressing and embodying modern language trends, but also convey evaluative values, in particular, the attitude of Ukrainians to the aggressors. In the media space, there is a noticeable trend towards the activation of lexemes motivated by anthroponyms. The role of means of modeling a complex image is performed by juxtapositions, which are characterized by graphic hybridization – writing in Latin and Cyrillic. High productivity is shown by blending nominations, which mainly contain transliterated Russian words, and negatively evaluated blendings, the components of which have undergone modifications. Neo-semanticisms fulfill the ironic and evaluative pragmatic intention. The words that have acquired a graphic update are aimed at implementing the same function. It is about writing with a lowercase letter proper names associated with the aggressor state and representatives of its power structures. The field of neographisms was filled with common names associated with Ukraine and its defenders, which are written with a capital letter.

The methodological basis proposed in the article is promising for the study of the process of neologization in the artistic discourse of the period of the Russian-Ukrainian war.

#### Literature:

- Boichuk, M. V., & Boichuk, V. M. (2017). Structural and semantic features of headline neologisms created by unproductive ways of word formation (based on the language of modern internet publications). *Scientific Proceedings of Ostroh Academy National University: Philology Series*, 66, 17–19.
- Busel, V. T. (Ed.). (2005). *A large explanatory dictionary of the modern Ukrainian language*. Iripin: Perun.
- Horodenska, K. (2020). Morphological-word-forming renormalization of loan adjectives in common phrases. *Scientific Bulletin of Uzhhorod National University. Series Philology*, 1(43), 92–99. [https://doi.org/10.24144/2663-6840.2020.1.\(43\).92-99](https://doi.org/10.24144/2663-6840.2020.1.(43).92-99).
- Iinca, E.-C., & Tomescu, A.-M. (2022). Neological creation and creativity in media discourse. *XLinguae*, (15)4, 223–232. [http://www.xlinguae.eu/2022\\_15\\_4\\_20.html](http://www.xlinguae.eu/2022_15_4_20.html).
- Kondratiuk, T. M. (Ed.). (2006). *Dictionary of Modern Ukrainian Slang*. Kharkiv: Folio.
- Kostusiak, N., & Mezhev O. (2018). Prefixal Innovations as a Mean of Psychological Impact on Consciousness Ofrecipient. *Psycholinguistics*, 24(2), 97–114.
- Kostusiak, N., Navalna, M., Levchenko, T., Grozian, N., Prymachok, O., & Prudnykova, T. (2021). Functional-Semantic and Derivative Signs of Nominations of Covid and its Synonymic Correspondents in the Latest Media Discourse. *AD ALTA: Journal of Interdisciplinary Research*, 11(2), XXI, 191–196. <http://www.magnanimitas.cz/ADALTA/110221/PDF/110221.pdf>.

8. Kostusiak, N., Navalna, M., & Mezhov, O. (2020). The functional-cognitive category of femininity in modern Ukrainian. *Cognitive Studies*, 20, Article No.: 2310, 1–12. <https://doi.org/10.11649/cs.2310>.
9. Koval, T. L. (2011). The expressive function of neologisms in the language of contemporary newspaper discourse. *Research Bulletin. Series: Philological Sciences*, 100, 78–81.
10. Pidkaminna, L. (2019). Linguostylistics of neologisms in the language of modern Ukrainian mass media. *Linguostylistic Studies*, 10, 144–153. <https://doi.org/10.29038/2413-0923-2019-10-144-153>.
11. Shahlee, S., & Rosniah M. (2019). Néologismes dans les réseaux sociaux parmi les jeunes. *Toryish Journal international de médecine (TIJM)*, 1(1), 1–9.
12. Styshov, O. A. (2015). Semantic neologisms in the discourse of Ukrainian media at the beginning of the XXI century. *Philological Studies: Scientific Bulletin of Kryvyi Rih State Pedagogical University*, 13, 364–374. [http://nbuv.gov.ua/UJRN/PhSt\\_2015\\_13\\_53](http://nbuv.gov.ua/UJRN/PhSt_2015_13_53).
13. Sultanbekova, S., Anafinova, M., Seidikenova, A., Bizhkenova, A. & Tleshova, Z. (2022). Dominant forms of neologisms in linguistics: functional and pragmatic analysis. *XLinguae* (15)4, 49–57. [http://xlinguae.eu/2022\\_15\\_4\\_5.html](http://xlinguae.eu/2022_15_4_5.html).
14. Tkachuk, O. B. (2010). Native neologisms in the Croatian language (based on the media language of the 1990s and early 21st century). *Linguistic Studies*, 21, 160–166.
15. Tretiakova, K. V. (2019). Functionally-pragmatic mission of neologisms in language. *International Humanitarian University Herald. Philology*, 42(1), 156–159. [http://www.vestnik-philology.mgu.od.ua/archive/v42/part\\_1/38.pdf](http://www.vestnik-philology.mgu.od.ua/archive/v42/part_1/38.pdf).
16. Vusyk, H. L., & Pavlyk, N. V. (2022). Neologisms as a language reflection of the Russian-Ukrainian war of 2022. *Transcarpathian Philological Studies*, 23(1), 52–57. <https://doi.org/10.32782/tps2663-4880/2022.23.1.9>.
17. Zholobova, A. (2021). Linguistic innovation during the COVID-19 pandemic: the Spanish language case. *XLinguae*, 14(2), 331–349. [http://xlinguae.eu/files/XLinguae2\\_2021\\_24.pdf](http://xlinguae.eu/files/XLinguae2_2021_24.pdf).

**Primary Paper Section: A**

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## THE SYSTEM OF FORMATION OF EDUCATIONAL ENVIRONMENT FOR THE PROFESSIONAL TRAINING OF FUTURE EDUCATION MANAGERS (IN UKRAINIAN CONTEXT)

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Abstract: Recent studies have considered the practical aspect of professional and pedagogical competence formation of students of pedagogical specialties as future managers of the educational environment. Aim of the research is to develop theoretical foundation, methodology and experimentation framework contributing to the formation of psychological and pedagogical conditions for shaping professional competence of managers in educational system.

Keywords: future education managers; professional competence; formation of professional competence; pedagogical experiment; professional training environment.

### 1 Introduction

In today's world, management and leadership in education necessitate a deep comprehension of both possibilities and difficulties. Educational organizations must adapt to the rapid changes they confront in order to be effective and relevant. In particular, technology is essential to this process since it provides creative ways to enhance abilities and workflow.

Modern requirements for both teacher and education manager training in the context of the modernization of teacher education are determined in the context of a competency-based approach and are revealed through the unity of the general cultural, professional, and socio-moral development of the student's personality [21; 22].

Experts note that the competence of a teacher and education manager is a complex characteristic of a person; it includes not only cognitive (knowledge) and operational-technological (skills, experience, practice), but also its motivational, ethical, social, and behavioral components. The guideline for the professional and personal development of future education managers is a complex of professional and personal qualities that characterize a modern education manager: a pronounced humanistic position, intelligence, spiritual culture; high professionalism, pedagogical creativity, the need for constant self-education and readiness for it. The personal and professional potential of a manager in education system is revealed in conditions of spiritual and moral self-enrichment, creative self-realization and self-affirmation in life and profession.

In this context, it should be mentioned that within the competency-based approach, two basic concepts are distinguished: competence and competency, while the first of them includes a set of interrelated personality qualities specified in relation to a certain range of objects and processes, while the second correlates with a person's possession of the corresponding competence, including his personal attitude

towards it and subject of activity. The competency-based approach to education is focused on the internal change in the value, need, motivational structures of the individual, his interests, attitudes, positions, personal meanings in mastering knowledge, skills, and methods of activity. By updating personal meanings and values of education, the competency-based approach, ensuring priority in the student's mind of personal goals and meanings, simultaneously brings social values and social meanings of mastering the system of competencies to a higher level.

Within the landscape of BANI world, in order to provide that graduates are in demand and successful as specialists, it is necessary to develop new competencies among university students. This does not mean that one needs to focus only on professional knowledge and skills. The ability to adapt to changing conditions of reality becomes vitally important for students and graduates.

In the post-pandemic period, the volatile, uncertain, complex, and ambiguous (VUCA) world is quickly giving way to a brittle, anxious, nonlinear, and incomprehensible (BANI) reality. The world of BANI is becoming increasingly more chaotic, with unpredictable and utterly unforeseen obstacles. Even though this is a relatively new concept, it is evident that there are strategies that may be applied to deal with the BANI environment. These strategies include data literacy, media literacy, critical thinking, resilience and slack, vigilance, mindfulness and empathy, adaptation and flexibility, high level of emotional intelligence, and so on.

Moreover, today, it is widely believed that the formation of soft skills is one of the main tasks of the educational process in universities when training specialists of any profile, since soft skills are no less important than professional knowledge and competencies. Namely, soft skills give graduates a competitive advantage. For future education manager, soft skills are especially important and should include both skills of working with colleagues and stakeholders, and with students and their parents, which complicates the overall landscape of soft skills and competence as such.

Turekiova [15] back in 2015 proposed a conceptual scheme of educational management structure, which still remains relevant today (see Figure 1).

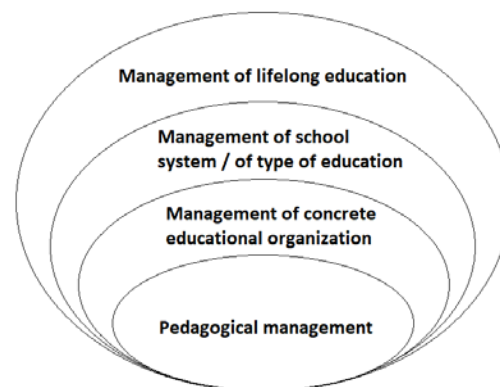


Figure 1. Structure of Educational Management [15]

Educational leaders apply theory to practical initiatives and circumstances in a relational, evidence-based manner in order to solve problems they face in their professional activities. Several reasons why educational leadership is essential, are as follows:

1. Overcoming Challenges: In order to overcome issues that educational institutions face, like tight finances, high student-teacher ratios, student poverty, and poor student

health, educational leaders are essential. They take a solutions-based strategy that promotes creativity and diversity and results in development and progress.

2. **Innovation and Adaptation:** Educational leadership encourages creativity in teaching approaches and assists establishments in adjusting to new conditions, such as the quick switch to remote learning that schools had to make in the wake of the COVID-19 pandemic.
3. **Better Educational Programming:** Curriculum standards, funding, and school-wide regulations are all ways that educational leaders work to improve their programs. In order to promote good transformation, they also focus on team development and restructuring initiatives.
4. **Inspiring a Positive Work Culture:** Collaborative work, inclusivity, and a clear future vision are all encouraged by effective educational management and leadership. Students gain from a more fulfilling educational experience when staff members and teachers work in a supportive setting.
5. **Policy Development and Advocacy:** Educational managers frequently work on reform and policy problems, promoting improved local, state, and federal educational systems.

At every level of education, from university academic deans to directors of preschool programs, there are roles in educational management. They require specialized education and specific attention to skills formation effectiveness.

Educational leadership is crucial to improving the educational system by guiding and influencing educators, fostering innovation, and creating positive change to enhance student learning experiences. Educational managers and leaders contribute to shaping the future of educational institutions and communities by promoting inclusivity, innovation, and positive work culture in pursuit of the common goal of providing quality education to all students.

The development of educational policies that will contribute to significant social improvement remains a primary area of concern in most democratic societies. Educational institutions, as cornerstones of enhancement, innovation, and social justice, must now confront the challenges of twenty-first-century education, striking a fair balance between quality and progress. One of the vital tasks for 'life science' universities is to transform into institutions that foster internal changes, drive social transformations, and prepare learners for active participation in increasingly diverse, complex, and dynamic conditions. Indeed, modern education managers must act as agents of change, civic leaders, and promoters of sociocultural development, serving as guides, particularly in achieving the UN Sustainable Development Goals.

Unlimited technical growth, which is increasingly accelerating, the one which in the 20th century was called scientific and technical revolution, has turned into permanent technical transformations, which social and cultural shifts in society and spiritual development of the individual cannot keep up with. In such conditions, it is no longer individuals or society that determine the content and direction of scientific-technical development, but rather the logic of technical progress and technological rationality that begin to dictate society and individuals the goals, values, and norms of social organization.

A modern education manager in Ukraine must be able to work in conditions of dynamic transformations of the socio-cultural space, respond to constant changes in the regulatory framework regulated by the Law of Ukraine "On Education," "On Higher Education", the National Strategy for the Development of Education in Ukraine for 2022-2032, the Strategy for the Development of Innovation Activities for the period up to 2030, the Resolution of the Cabinet of Ministers of Ukraine "On Approval of the National Qualifications Framework", the National Doctrine of Education Development, and the Order of the Ministry of Education and Science of Ukraine "On Approval of the Higher Education Standard in the Specialty 073 "Management" for the Second (Master's) Level of Higher Education" [3; 4; 5; 6; 10].

Therefore, the creation of a modern educational environment in a life sciences university should aim to teach learners to develop their professional competence, to be able to envision and work towards the future. It is essential to be able to respond to the challenges and threats of today, to cultivate scenario thinking – considering multiple future scenarios simultaneously, characterized by instability, uncertainty, complexity, and ambiguity. In such circumstances, one should find strength within oneself, seek reserves, and respond non-aggressively. Thus, developing resilience, self-motivation, determination, stress tolerance, and the ability to react promptly to events and threats, adapting to current situations is crucial [10; 12; 13; 16].

One of the most crucial resources for ensuring the effectiveness of educational reforms in the country is the issues with professional training for education managers in the higher education system.

An educational manager today must be able to work in a team, study global issues, and devise a strategy for each of them, examine the main threats and risks, and plan how to work if they occur. It is important to convey this to the team and colleagues, as we all must be prepared to work in a chaotic environment. All this must be taken into account in the formation of the professional competence of the future education manager [14; 19 20].

Education managers today have a special mission – to give more than they take. This is particularly relevant from a managerial perspective, because today, self-development is a pressing issue – it is about accelerating dynamic changes.

Therefore, creating an educational environment for the professional training of future education managers regarding the formation of professional competence is currently a relevant issue.

## 2 Materials and Methods

To solve the set research tasks, the following research methods were used: analysis of philosophical, psychological, pedagogical, and methodological literature on the topic of research, as well as regulatory documents, comparison and generalization of the content of concepts and categories; pedagogical observation, questioning, testing, ascertaining and formative pedagogical experiments, qualitative and quantitative analysis of the data obtained; modeling of the processes under study; methods of statistical data processing.

## 3 Results and Discussion

The experimental verification of the research hypothesis involved the use of pedagogical experimentation as a scientific method of investigation. The purpose of the experiment was to test the validity of the proposed hypothesis, establish the legitimacy, effectiveness, and efficiency of the developed scientific-methodical system for the formation of professional competence of future education managers in conditions of perturbation, and objectively assess the theoretical conclusions regarding its development.

In the pedagogical experiment conducted at the National University of Life and Environmental Sciences of Ukraine in natural conditions (without disrupting the logic and flow of the educational process), future education managers, school principals, their deputies, and practicing teachers participated, totaling 128 respondents. The simultaneous verification of the legitimacy, effectiveness, and efficiency of the system for developing the professional competence of future education managers in the experimental group during classes contributed to the improvement of their preparation for managerial activities [19].

The experimental work involved a combination of methods: *observation* – purposeful, systematic perception, and recording of psychological-pedagogical manifestations of behavior and activities of learners, aimed at a comprehensive study of the

master's personality in various aspects and relationships; determination of the level of formation of professional competence, dynamics of personal-professional growth. *Interviews* with learners – individual and group ones, based on obtaining data on the nature of learners' motives, their professional-value orientations, individual-personal peculiarities, inclinations, qualities, etc.; *surveys* (using such questionnaires as “Your awareness in the field of professional competence of an educational institution manager”, “Your attitude towards problems of managing an educational institution on the basis of pedagogical interaction”, “Your attitude towards the development of professional competence of future educational institution manager”, “Self-management techniques”). The task of the survey was to identify learners' personal attitudes towards the formation of professional competence; determination of motives for its formation; clarification of the formation of cognitive interest in professional competence in conditions of perturbation. *Psychological-pedagogical diagnostics and self-diagnostics* were used – tests “Conflict Depth Assessment” and “Self-Assessment of Conflict”. The tasks of diagnostics were the assessment of the nature of the conflict situation and self-assessment of conflict. *The method of expert assessments* was aimed at determining and specifying the basic provisions of the research methodology, determination of criteria, indicators reflecting the essential characteristics of the professional competence of future education managers. *Testing* implied the use of didactic tests aimed at determining the level of formation of professional competence (its completeness). The pedagogical experiment was aimed to test the system for forming the professional competence of future education managers. Pearson's mathematical statistics methods were used to verify the reliability of the obtained results.

The pedagogical experiment proceeded in stages, including the exploratory, formative, and control stages.

During the exploratory stage, a diagnostic assessment of the initial level of formation of professional competence of future education managers was conducted based on defined criteria and indicators.

Given that the professional competence of future education managers is determined not only by their knowledge, skills, abilities, but also by their values orientations, motives of activity, we were particularly interested in the motives that drive future education managers to contemplate the specifics of managerial activities.

The spectrum of learners' motives was identified using statements that included motives for managerial activities, which needed to be ranked in order of personal significance. Based on the survey and ranking, the following data were obtained:

- Desire to be a competent education manager – 35.15%;
- Interest in educational management – 27.34%;
- Desire to acquire knowledge necessary for educational institution management – 23.43%;
- Desire to acquire practical methods necessary for quality management of educational services – 19.53%;
- Desire to create a positive psychological climate in the team – 21.85%;
- Desire to conduct managerial activities based on leadership – 16.40%;
- Development of own abilities and skills in the context of professional competence – 14.84%.

Among the respondents, a relatively small number of learners (less than 9.3%) chose motives such as the desire to complete their studies, pass exams successfully, etc.

The data obtained regarding the motives of learners were used by us to determine the directions of specific work with future education managers.

Conducting surveys through questionnaires allowed us to conclude that 61.7% of learners did not have a clear understanding of the essence of the professional competence of

an educational institution manager, and they predominantly considered the management process in the educational institution as the manager's sphere of activity. Only 35.2% of learners associated professional competence with the managerial activities of the manager, considering them as the subject of management. Nearly half of the learners had insufficiently developed skills in managing the educational process and their own activities, and fragmented knowledge of professional management of an educational institution.

To determine the ways of forming the professional competence of future education managers, we conducted a survey of teachers (23 individuals) and second-cycle (master's level) higher education students (69 individuals). Among the most significant components for enhancing the effectiveness of the educational process, respondents identified the following:

- Enrichment of educational components of the specialized training cycle with economic content (43.5% of teachers and 55.1% of students).
- Presence of systematic, consistent, and sequential approach in the professional training of future education managers (73.9% of teachers and 46.4% of students).
- Consideration of continuity of educational components at all stages of learning (60.9% of teachers and 36.2% of students).
- Introduction of integrated specialized courses with applied character (56.5% of teachers and 65.2% of students).

During the formative experiment, an experimental verification of scientifically grounded pedagogical conditions for forming the professional competence of future education managers was conducted.

The control stage of the formative experiment involved analyzing and evaluating the obtained results, and if necessary, adjusting the content of educational disciplines or formation technologies.

Two groups were involved in the formative experiment: the experimental group (EG) consisting of 68 individuals and the control group (CG) consisting of 71 individuals.

The aim of the formative experiment was to test the hypothesis put forward, as well as the effectiveness and efficiency of the system for forming the professional competence of future education managers, and the objectivity of theoretical conclusions.

The formative experiment was conducted based on the requirements for pedagogical research outlined in the works of S. Honcharenko, P. Dmytrenko, M. Sadovyi, and others.

Methods for diagnosing the formation of components of professional competence were selected taking into account that a comprehensive methodology for its assessment has not yet been developed in the theory and methodology of vocational education. Therefore, we used commonly accepted methodologies (L. Karamushka, O. Bondarchuk, T. Grubi, K. Jung? M. Snyder, and others), which allowed us to identify systemic features of the structural components of professional competence and their indicators in the respondents.

Thus, one of the main tasks and outcomes of the professional training of future educational managers should be their understanding that the effectiveness of future managerial activities depends not only on the knowledge and skills acquired at the university but also on the formation of professional competence.

The specificity of the professional competence of future educational managers is reflected in the content of its structural components. We present the structure of professional competence of future educational managers in the form of the following interconnected components: value-motivational, cognitive, procedural, and personal-reflective. Each of these components is characterized by specific content that corresponds



to the peculiarities of the managerial activities of future educational managers.

*The value-motivational component* involves a professional-pedagogical orientation towards understanding the values of management in the activities of an educational institution's leader.

*The cognitive component* comprises a system of psycho-pedagogical knowledge of learners (analysis of the organizational activities of the educational institution, quality management in education).

*The procedural component* constitutes a set of professional skills, the main groups of which include: cognitive skills; organizational skills; scenario thinking (systematic and critical thinking; envisioning and solving creative developmental events); entrepreneurship (initiative and ingenuity).

*The personal-reflective component* is characterized by the development of the ability to manage, the ability to make choices and managerial decisions; forecasting the results of the management process, selecting methods, techniques, and forms of self-management, the ability to self-analyze.

All components represent and characterize approaches to managerial activity, namely: the ability to exert a positive influence on the educational institution's staff, individuals, and groups, directing their efforts towards achieving the strategic goals of the educational institution; the ability to quickly react to changes and foster flexibility and adaptability in all participants of the educational process, the ability to use modern forms and methods of communication, collaboration, and interaction, including the use of digital technologies, the ability to represent the interests of the educational institution, and so on [11].

The formation of professional competence involved the following stages: preparatory, motivational-orientated, substantive-procedural, and evaluative-corrective stages [19].

Analysis of the results of the conducted experiment confirmed the success of work on forming the professional competence of future educational managers.

The reliability of the obtained experimental data is confirmed by methods of mathematical statistics (using the parametric Pearson's chi-squared test): result:  $X^2_{emp}=0.508$

The critical value of  $X^2$  at  $V=2$

| V | P     |      |
|---|-------|------|
|   | 0.05  | 0.01 |
| 2 | 5.991 | 9.21 |

Differences between the two distributions are considered significant. If  $X^2_{emp}$  reaches or exceeds  $X^2_{0.005}$ , it is even more significant if  $X^2_{emp}$  reaches or exceeds  $X^2_{0.01}$ .

Response:  $X^2_{emp}$  is less than the critical value, indicating that the discrepancy between the distributions is not statistically significant (null hypothesis  $H_0$ ) [9].

As we can see, according to the Pearson criterion, at the beginning of the experimental work, the interest in education management in the experimental (EG) and control (CG) groups of future education managers is the same.

Thus, during the pedagogical experiment, the results of the formation of professional competence in future educational managers are presented. According to the value-cognitive criterion (based on survey results), the formation of a stable cognitive interest in professional competence in the EG is (20.47%), while in the CG it is 4.22%; the formation of situational cognitive interest in professional competence in the EG is -4.29%, while in the CG it is 5.60%; the absence of cognitive interest in the EG is -16.18%, and in the CG it is -9.82%; the value motivation in acquiring professional

competence, activity, and creativity in the process of self-development in the EG is 14.80%, while in the CG it is -2.80%; the perception of the importance of acquiring professional competence, but in the context of a specific situation, usually associated with external stimuli in the EG is -11.80%, in the CG - 18.30%; the lack of awareness of the significance and role of professional competence, but in conditions of activity of personal orientation towards its formation in the EG is -3, in the CG - -15.50%.

According to the cognitive criterion (based on the performance of didactic tests): the completeness of psychological and pedagogical knowledge – the quantity of programmatic knowledge about the features of forming professional competence in the EG is 4.40%, while in the CG it is 4.20%; the creative nature of assimilation (the presence of conscious and systematic professional knowledge, free and creative interpretation, deep expertise in the field of entrepreneurship and innovation, ability to discover unknown aspects of objects, a sense of problem, originality of conclusions) in the EG is 10.30%, in the CG it is 1.45%; the reconstructive nature of knowledge assimilation in the EG is 4.41%, in the CG -4.23%; the reproductive nature of knowledge assimilation (assimilation of a certain part of elementary knowledge about educational management without their creative reinterpretation and transfer to practical use, limited professional outlook, lack of knowledge about methods of cognition and methods of activity, reproduction of ready-made knowledge) in the EG is -14.71%, in the CG it is 2.78%.

According to the activity criterion, the formation of professional skills was assessed (based on the results of solving pedagogical situations and diagnostic tests):

- Cognitive skills (generating ideas; demonstrating internal confidence in implementing own ideas; thinking globally; presenting own reflexive ideas; identifying and solving problems) in the EG is 13.28%, while in the CG it is absent;
- Organizational skills (clearly defining goals in managing the educational activities of the educational institution and setting and performing tasks; organizing the activities of the educational institution; optimally allocating own time, own efforts, and resources) in the EG is 20.50%, in the CG it is 12.60%;
- Scenario thinking (systemic and critical thinking; envisioning and solving the creative development of events) in the EG is 25%, in the CG it is 1.40%;
- Entrepreneurship (initiative and resourcefulness) in the EG is 22.10%, in the CG it is 15.50%;
- Reflective skills (analysis, self-analysis, evaluation, self-assessment, reflection, self-reflection, and correction of the results of own actions and deeds for further self-realization in managerial activities) in the EG is 29.40%, in the CG 11.90%.

According to the personal-professional criterion – the development of personal-professional qualities (based on self-assessment and peer assessment, as well as the creation of pedagogical situations), namely:

- Resilience (overcoming stress and difficult periods constructively; restoring own strength, mastering oneself in cases of moral, psychological strain) in the EG is 30.90%, in the CG it is 11.30%;
- Social activity (multifaceted interaction with the external (social) environment, assuming specific social roles) in the EG is 19.10%, in the CG it is 1.40%;
- Intuitive thinking in the EG is 22.10%, in the CG it is 4.30%;
- Health-promoting thinking (directing thinking towards overcoming negative emotional states or mental healing) in the EG is 14.18%, in the CG it is 1.40%;
- Pedagogical, social, and networking partnerships in the EG are 29.41%, in the CG it is 5.6%.

Therefore, the analysis of the results obtained from the conducted pedagogical experiment confirmed the successful formation of the professional competence of future educational managers. The obtained results provide grounds to consider that the goal of the pedagogical experiment has been achieved, and the organization of the educational environment has positively influenced the formation of the value-motivational, cognitive, activity, and personal-professional structural components of the professional competence of future educational managers.

The reliability of the obtained experimental data is confirmed by methods of mathematical statistics (using the Pearson parametric criterion).

#### Literature:

1. Balanovska, T., Hohulia, O., Kubytskyi, S., Mykhailichenko, M., Troyan, A. (2021). *Organization Management*. Kyiv: FOP Yamchynskyi, O.
2. Bazeliuk, V., Kubytskyi, S., Mykhailichenko, M., Mykhniuk, S. (2022). *Management Technique*. Kyiv: Milenium.
3. Bazeliuk, V., Kubitskyi, S., Rudyk, Ya., Riabova, Z., Novak, O. (2021). The system of formation and diagnosis of levels of innovation and entrepreneurship competence of the future managers of education in the conditions of the knowledge economy. *Financial and Credit Activity: Problems of Theory and Practice*, 4(39), 550-558.
4. Bazeliuk, O., Vitrenko, Yu., Zhyliayev, I., Vorona, V., Bazeliuk, V. (2023). Mechanisms for enhancing the financial autonomy of universities: the digital dimension. *Financial and Credit Activity: Problems of Theory and Practice*, 1(48), 450-460. <https://fkd.net.ua/index.php/fkd/article/view/3904/3776>
5. Cherezova, I. (2021). Adaptive behavior of the individual in the context of life crises. *Scientific Notes of Berdiansk State Pedagogical University. Series: Pedagogical Sciences*, 1, 72-79.
6. Cherezova, I. (2023). Psychological state of participants in the educational process of Berdiansk State Pedagogical University: monitoring research results. *Scientific Notes of Berdiansk State Pedagogical University. Series: Pedagogical Sciences*, 3, 108-119.
7. Kubitskyi, S., & Chaika, O. (2020). Coaching core competencies as the key soft skill for successful human resources management. *Internauka. Economic Sciences*, 8(40), 43-48.
8. Osadcha, K., & Osadchy, V. (2022). Analysis of mixed learning experience in foreign higher education institutions. *Modern Information Technologies and Innovation Methodologies of Education in Professional Training Methodology Theory Experience Problems*, 60, 410-420. <https://doi.org/10.31652/2412-1142-2021-60-410-420>, 410-420.
9. Parkhomenko, I., & Bazeliuk, V. (2022). Organization of the personnel management service "Modern Student Science as the Basis for the Future Potential of the Ukrainian Nation", Collection of Scientific Works, May 20, Kyiv, pp. 78-80.
10. Prykhodkina, N., Tymoshko, H., Sholokh, O., Makhynia, T., Koroliuk, S., Genkal, S. (2022). Peculiarities of professional training of educational managers in conditions of transformation processes. *Postmodern Openings*, 13(2), 254-272. <https://doi.org/10.18662/po/13.2/452>
11. Psychological help. Calculation of the Pearson criterion. <http://www.psychol-ok.ru/statistics/pearson>
12. Shumilova, I. (2021). Designing a teaching technology for the leadership of future educational managers. *Pedagogy of Forming a Creative Personality in Higher and Secondary Schools*, 75(3), 153-159.
13. Shumilova, I., Bazeliuk, V., Kubitskyi, S., Rudyk, Ya., Hrechanyk, N., Rozhnova, T., Prykhodkina, N. (2023). The system of forming the emotional and ethical competence of the future education manager in the conditions of transformational changes. *AD ALTA: Journal of Interdisciplinary Research*, 13(2), Special Issue XXXVIII, 82-89.
14. Shumilova, I., Cherezova, I., Horetska, O., Serdiuk, N., Fedoryk, V. (2023). The procedure for the integral assessment of the university students' competence: the possibilities and potential of experimental methods. *AD ALTA: Journal of Interdisciplinary Research*, 13(2), Special Issue XXXVII, 57-62.
15. Tureckiova, M. (2015). Educational management and educational needs of teaching staff. Proceedings of 26th and the 27th International Academic Conference (Istanbul, Prague). <http://dx.doi.org/10.20472/IAC.2016.027.048>
16. Ursakii, Yu., & Kubitskyi, S. (2020). The role of the leader in motivating the personnel. *Bulletin of Chernivtsi Trade and Economic Institute, Issue I-II*, 77-78.
17. Volotovska, T. (2015). Self-management of the head of a general educational institution as the basis for his self-education. *Theory and Methods of Educational Management*, 2(16), 1-15.
18. Volotovska, T. (2017). Theoretical aspects of managerial competence of heads of general educational institutions. *Bulletin of Chernihiv National Pedagogical University. Series "Pedagogical Sciences"*, 142, 26-31. [http://nbuv.gov.ua/UJRN/VchdpuP\\_2017\\_142\\_8](http://nbuv.gov.ua/UJRN/VchdpuP_2017_142_8)
19. Volotovska, T. (2023). Development of self-management of future managers of secondary education institutions in the system of higher professional education. *Multidisciplinary International Scientific Journal "Science and Perspectives"*, 4(23), 276. DOI: [https://doi.org/10.52058/2695-1592-2023-4\(23\)](https://doi.org/10.52058/2695-1592-2023-4(23)).
20. Volotovska, T., & Tiamolova, I. (2023). Domestic and foreign experience in the management of a secondary school based on acmeological approach. *Scientific Innovations and Advanced Technologies*, 5(19), 636. DOI: [https://doi.org/10.52058/2786-5274-2023-5\(19\)](https://doi.org/10.52058/2786-5274-2023-5(19))
21. Zahorodnova, V., Panova, N., Cherezova, I., Glazkova, I., Nischeta, V. (2019). The intercultural communication as a tool of multilingual personality formation in modern educational space of Ukraine. *Journal of History Culture and Art Research*, 8(1), 55-66. <http://dx.doi.org/10.7596/taksad.v8i1.2007>
22. Zinchenko, V., Boichenko, M., Sliusarenko, O., Popovych, M., Radchenko, L., Yehupov, M., Bazeliuk, V. (2023). New dimensions and dead ends in AI development: Impact and responsibility of science and higher education. *E3S Web of Conferences* 419, 02001. <https://doi.org/10.1051/e3sconf/202341902001>

**Primary Paper Section: A**

**Secondary Paper Section: AL**

# STATE POLICY, HUMAN CAPITAL AND INTERNATIONAL ECONOMIC RELATIONS IN THE CONTEXT OF REFORMING LOCAL SELF-GOVERNMENT BODIES THROUGH DIGITALIZATION, ARTIFICIAL INTELLIGENCE AND SOCIO-ECONOMIC TRANSFORMATIONS

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**Abstract:** The study examines human capital as a set of socio-economic relations and as one of the determining factors of economic growth. The main attention is paid to the analysis of opportunities to improve the quality of human capital at the local level, based on mechanisms of cooperation among stakeholders and reforming the landscape of local self-government - in particular, through the creation of innovation hubs, the implementation of digitalization projects, and the expansion of the use of artificial intelligence technologies. The opportunities and benefits of direct participation of local communities in international economic relations and global supply chains are demonstrated.

**Keywords:** local democracy; social interaction; human capital, international economic relations; transformation; artificial intelligence.

## 1 Introduction

The scholarly research is generally in agreement that human capital plays a critical role in today's knowledge-driven economy and is a significant predictor of productivity and other economic outcomes, both at the individual and aggregate levels. There is evidence at the macroeconomic level that human capital plays a significant role in the increase of aggregate productivity, but there is still a great deal of doubt regarding the precise amount of this contribution due to a number of econometric issues that make it difficult to interpret the empirical data. According to the most reliable estimates in the literature, one extra year of average schooling raises aggregate production by around 5% immediately and by an additional 5% over time, assuming all other factors remain constant [58]. The invention and acceptance of new technologies as well as the ongoing enhancement of current production methods are examples of how human capital contributes to technical advancement, and this is reflected in the second effect. Recent studies also point to the possibility that the quality of education may have an equal impact on productivity as its quantity, but more research is required before we can determine the precise magnitude of the relevant effects.

Numerous studies have demonstrated that human capital plays a critical role in economic growth, both in terms of the level effect (also known as the "level effect"), which has a significant impact on production through labor productivity, and the rate effect (which increases competitive advantage through innovation and technology diffusion) [17].

Thus, human capital is extremely important element determining the place of country in the system of international economic relations [5].

The traditional theory of economic growth views labor productivity as an exogenous variable that depends on the workforce-to-physical capital ratio as well as other variables

(technical advancement). However, the positive impact of education on potential productivity growth is not factored in. This flaw in the traditional theory of economic growth - which stressed the role of creativity and education as components of human capital - was addressed by the new theory of economic growth that emerged in the early 1980s. On the other hand, as the new growth theory demonstrates [48], research has indicated the impact of intangible assets like R&D, patents, and intellectual capital on the market value of businesses and their growth, which in turn leads to overall economic growth at the national, regional, or global levels. This is in contrast to the theory of market value.

Europe has experienced sluggish growth ever since the 2008 financial crisis, and the COVID-19 pandemic is making matters worse. In the upcoming decades, fostering economic expansion and shifting toward an industrial structure that is more knowledge-based will be top priorities. Using Norway as a numerical instance, Bye and Faehn [14] investigate how increasing and improving human capital might support knowledge accumulation and structural change using a dynamic endogenous growth model. The authors stress that human capital plays two primary roles in the expansion of productivity: first, it can foster innovation by engaging in research and development (R&D); second, it can enhance absorptive capacity in industries that trade and can benefit from global knowledge. Bye and Faehn's research indicates that in a small, open economy, the fastest-growing industries are typically those where trade, R&D, and human capital interact to facilitate absorption.

In keeping with the Romer tradition, the innovation channel is modeled as R&D-based [52]. The empirical significance of human capital input in this process has been extensively shown in the literature [49]. R&D is demonstrated to have a second effect, or a second face, in addition to domestic innovation by boosting the economy's ability to absorb new information. Because R&D activities are crucial for absorption, the economy's ability to absorb resources is indirectly impacted by the human capital invested in R&D. Furthermore, absorptive capacity may be directly impacted by the degree of human capital [61]. To be more precise, while businesses may be able to access the global technological frontier through their international interactions through networking, importing, exporting, and investing, the capacity to leverage this global knowledge pool hinges directly on the R&D and human capital of the home country. This theory has received strong support from empirical studies [45].

Nonetheless, local territories now play a major role in this "small economy", as they participate in international economic relations, digitalization, effective self-government, the application of artificial intelligence (AI) technologies, sustainable socioeconomic transformation, and the creation of favorable conditions for the intensive development of human capital, all of which have an impact at the national level [62]. Within the context of international economic relations, systematic research into all of the aforementioned components of state policy and the environment for the development of human capital is an extremely pertinent scientific undertaking.

## 2 Materials and Methods

The methodological paradigm of the study is the dialectical method of cognition, theoretical provisions and conclusions on the problems of transformation of economic systems and the formation of human capital. The theoretical and methodological basis of the work was the results of fundamental and applied research developed by representatives of various areas of economic theory and knowledge economics, as well as the theory of human capital and innovation. The work uses a variety

of methods of scientific knowledge at different levels: comparison, analysis and synthesis, logical method, abstraction, formalization, generalization, system analysis, complex method.

### 3 Results and Discussion

Modern international economic relations cover unconventional topics like smart cities, global cities, and even rural communities. All levels, including municipal ones, are impacted by digitalization, the introduction of cutting-edge AI technology, and the growth of human capital. Furthermore, it appears that the local level is the most productive arena for these operations.

According to Atamanchuk and Syrotin [3], research and innovation are concentrated in so-called global cities. They draw bright scientists, researchers, and businesspeople, promoting scientific inquiry, the creation of novel technology, and startup ventures. Global cities' creative ecosystems draw high-tech investments and help to establish new markets. Global cities have an impact on international trade through serving as hubs for global supply chains and logistics, promoting trade in goods and services between nations, and supplying the infrastructure - such as international airports, seaports, and air ports - necessary for the effective movement of goods [4; 6]. Thus, global cities are essential to fostering better relationships between nations in the economy. They enhance trade between countries, encourage innovation, foster the growth of international industry, and create favorable conditions for the influx of foreign investment.

Thus, global cities are essential to fostering better relationships between nations in the economy [34]. They enhance trade between countries, encourage innovation, foster the growth of international industry, and create favorable conditions for the influx of foreign investment.

Global cities do not ratify international agreements or maintain embassies abroad. Cities, however, have the power to affect international economic connections, take part in many types of discussions, and strike agreements [7; 54]. Global cities are crucial in tackling many of the issues that face different nations on a worldwide scale, such as pandemics, terrorism, and cybersecurity issues as well as climate change.

These cities usually have a mature workforce, well-built infrastructure, easy access to markets, and a welcoming atmosphere for businesses. These elements draw in foreign businesses looking to increase their market share internationally.

This, however, concerns not only cities but actually any local communities.

Innovation hubs are increasingly becoming an integral part of urban planning as planners seek to revitalize economic and employment opportunities by creating an environment conducive to innovation [9-11]. The scale of such environments can range from departments of companies or individual multi-tenant buildings (often called incubators) to entire geographic regions called clusters. For the most part, as defined by the Massachusetts Institute of Technology, these are "dense networks of interconnected technology companies, customers and suppliers" [19].

Innovation hubs or innovation centers are organizational structures created to support and stimulate innovation, start-up development, technology entrepreneurship and collaboration between various participants in the innovation ecosystem [13; 16]. Innovation hubs typically bring together a variety of resources, such as coworking spaces, collaborative labs, educational programs, investment funds, consulting services, and industry connections. They provide conditions for interaction between startups, investors, entrepreneurs, researchers, government officials and other interested parties [35].

Community innovation hubs have gained popularity as a means of addressing the issue of resource scarcity, demonstrating the value of decentralizing possibilities and influence in marginalized groups [20-22]. These hubs give people -

especially young people - a place to gather and work together on projects that either address the unique needs and difficulties of their community or correspond with a trend in education for the workforce of the future.

Fostering a sense of urgency and ownership among community members is one of the main advantages of community innovation hubs. Instead of depending on outside groups to solve their problems, community members can actively address the issues that impact them by taking part in the conception and implementation of projects. Increased communal pride and empowerment may result from this [1; 28].

The ability of community innovation hubs to promote development and economic progress is an additional benefit. These hubs can aid small firms and entrepreneurs in underprivileged communities by giving them access to resources including capital, networking opportunities, and mentorship [24; 26]. Consequently, this can result in the generation of fresh employment opportunities and an overall enhancement of the community's financial prosperity.

Community innovation hubs not only give people a location to work on initiatives, but they also frequently provide a variety of training and educational possibilities. Numerous hubs provide workshops and classes covering a wide range of subjects, including woodworking, textiles, digital marketing, data science, and programming [31; 32]. These courses can be a fantastic method for people to broaden their knowledge and acquire new skills in order to get ready for the workforce or to pursue entrepreneurship.

It follows that the state's policy of encouraging the establishment of hubs in local communities has effectively turned these towns into real players in international trade relations (particularly when it comes to IT services and innovations, engineering and other R&D, but also biotechnologies, medicine, and tourism). By acting as "plants for producing human capital", or more accurately, as producers of social capital, innovative hubs enable the revitalization of even the most marginalized communities.

Antiroiko et al. [2] suggest schematic depiction of local innovation hub in local-global dialectic (see Figure 1).

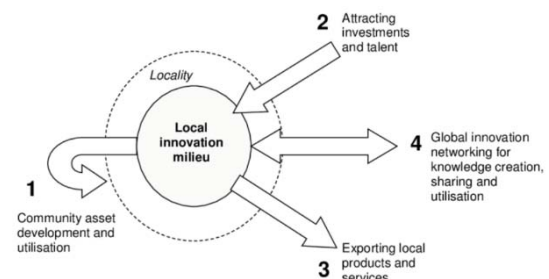


Figure 1. Local innovation hub in local-global dialectic [2]

Numerous stakeholders might benefit from community hubs in different ways. They give various industries and disciplines the chance to collaborate and share expertise, which results in more applicable and efficient research methods. Community hubs facilitate better transmission of information and produce instruments for policy assessment for scholars. More knowledgeable care and more successful treatments benefit communities [36-40]. Service providers can improve their offerings by making use of the knowledge and resources found in community hubs. These hubs create knowledge that may be used by policymakers to make well-informed decisions. Community hubs can also be warm, stimulating spaces that link and involve teachers, families, students, and the larger community. As a result, the community hubs offer a fantastic setting for ongoing human capital development.

Creation of innovative hubs lead to 'undeclared' reform of local self-government, stimulating both public-private partnership and penta-helix-like models introduction.

According to Adam Ryan [55], Living Labs are what turn cities into centers of innovation for neighborhood solutions. The amazing idea of Enter Living Labs is changing the way cities approach difficult issues [41-43]. These innovation hubs use community involvement, teamwork, and technology to create significant change.

Living Labs are dynamic, real-world settings where local communities and the public and business sectors work together to develop and test creative solutions for problems that the community has identified.

These labs are characterized by several key features [55]:

1. **Community-Centric:** Locals' needs and preferences are given first priority by Living Labs. Participation and input from the community are essential to the innovation process.
2. **Interdisciplinary Collaboration:** They promote cross-sector collaboration by bringing together a wide range of stakeholders, including corporations, non-profits, government agencies, and academic institutions.
3. **Iterative Testing:** In a real-world urban setting, solutions are tested, honed, and improved. This allows for quick revisions based on input and actual results.
4. **Technological Integration:** To create cutting-edge solutions, Living Labs makes use of cutting-edge technologies like AI, data analytics, and the Internet of Things.
5. **Access to fresh insights:** Have the ability to learn through testing in order to eventually be able to provide more focused solutions.

The interests of "elite" economic actors, such as multinational corporations, industry associations, banks, hedge funds, and billionaires who can effectively influence the negotiating position of the most powerful governments, greatly influence the terms that governments create in international trade and investment agreements [25; 59]. These partnerships frequently result in business policies and practices that hurt Native Americans and other economically disadvantaged groups. John Borrows [12] contends, however, that the revival of Indigenous peoples' law implies that agreements are assessed using standards that are not limited to those established by international accords or nation states. Communities and investors must thus navigate this unfamiliar territory as a result of the growth of Indigenous normativity as a component of international investment and trade. In presenting these arguments, Professor Borrows looks at how domestic law recognizes and upholds Indigenous constitutional and statutory safeguards as well as the function of Indigenous peoples' law in implementing foreign investment and commerce.

The OECD stressed the need to align implementation and improve coordination between levels of government, across different sectoral policies, and with Indigenous communities in order to facilitate policy coherence. This can be achieved by creating (or improving) national strategic policy frameworks for Indigenous economic development. It is also said that resources and mechanisms must be made available to develop the capacity of Indigenous-led organizations and to promote opportunities for meaningful engagement of Indigenous peoples in government decision-making [47].

The process is just getting started for indigenous groups who decide to "opt in" to the global economy. They must find commercial possibilities, gather resources, and create organizations to take advantage of these chances in order to effectively "opt in", whether on their own terms or not, in order to meet their other development goals in addition to economic ones [8; 63]. This is how entrepreneurship works. Schumpeterian entrepreneurship is more broadly understood as an economy-building process than the restricted definition of

entrepreneurship, which is limited to small businesses owned and/or newly founded businesses by entrepreneurs.

The Aboriginal Peoples of Canada, the First Nations, Métis, and Inuit; the Maori in New Zealand; the Quechuas and Aymaras in Perú; and many other indigenous tribes have undoubtedly made efforts to harness entrepreneurship toward both social and economic purposes. These peoples generally agree that the way to create a more dynamic economy and rebuild the country is through entrepreneurship and company growth [30; 53]. The "second wave" of indigenous economic growth has been referred to as their entrepreneurial involvement in the global economy; the "first wave" was their direct economic aid.

The noticeable shift away from import substitution and inward-focused cultures and toward integration with the global economy - including outsourcing, strategic alliances, regional trade blocs, and the rise of small, international businesses - is a component of this trend [46; 51; 56; 57]. From this angle, entrepreneurship is viewed as a means of achieving equality in a meritocratic society. Private sector company creation, support, and development are perceived as sources of wealth that will inevitably "trickle down" to benefit everyone. Respect for the meritocracy concept is a major factor in the development of human capital.

Experts now stress that the Indigenous economy has enormous growth potential on a global scale [50; 65]. A greater involvement of Indigenous businesses in trade and policy development could lead to actual economic prosperity while also assisting in the reform of local self-governments and socioeconomic transformation by removing bureaucratic red tape and replacing it with agile governance that can better withstand the challenges of a dynamic and non-linear reality.

Gaining access to prospects and expanding a firm require finding the correct suppliers, buyers, and partners. Specifically, the industry-based and Indigenous-led Indigenous Network for Investment, Trade and Export (IgNITE) in Australia is supporting inclusive trade policies and Indigenous inclusions, fostering export prospects, and enhancing Indigenous capability. In order to encourage Indigenous participation in supply chains, the Australian government also established the Indigenous Procurement Policy. As a result, 2,604 Indigenous enterprises were given contracts worth an estimated \$3.6 billion as of 2021. In addition to serving as a platform for connecting Indigenous and non-Indigenous companies, Supply Nation was founded to promote and assist this government initiative [64].

Similar initiatives have been developed in Canada by the Canadian Council for Aboriginal Business (CCAB). Within APEC and the most recent free-trade discussions with the UK and the EU, the Māori-led Te Taumata in New Zealand has sought to demonstrate Māori leadership and involvement in trade affairs. An estimated 50,000 enterprises working in all areas of Canada's economy are owned and operated by Indigenous entrepreneurs, making up a sizable and varied business community [61]. Numerous of these companies currently provide goods and services that are in high demand globally.

A noteworthy result from recent research conducted by the Canadian Council for Aboriginal Business (CCAB) is that, in comparison to the Canadian SME average of 12.1%, only 7.2% of Indigenous SMEs export [60]. Indigenous communities have a great chance to flourish and be empowered as a result of this export gap. There is a lot of room here for state policy creation. Simultaneously, Indigenous SMEs exhibit a high degree of potential in a number of areas; in the manufacturing sector, this potential even outperforms that of all Canadian SMEs (refer to Figure 2).



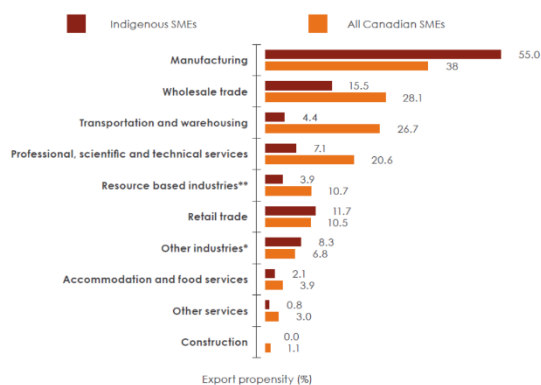


Figure 2. Export propensities of Canadian SMEs by industry [12]

The majority of Canadian exporters, both Indigenous and non-Indigenous, choose to sell their goods in the United States, although compared to the Canadian average, Indigenous exporters are typically marginally more interested in oceanic destinations like Australia and New Zealand. More than 60% of Indigenous SME exporters say they intend to grow into foreign markets, especially in the manufacturing, retail, and leisure, entertainment, and arts sectors. Compared to the average Canadian SME (3.8%), indigenous SMEs that do not already export are four times as likely to express plans to start exporting (16.3%) [15]. Top 12 destination markets for Indigenous SME exporters are presented in Figure 3.

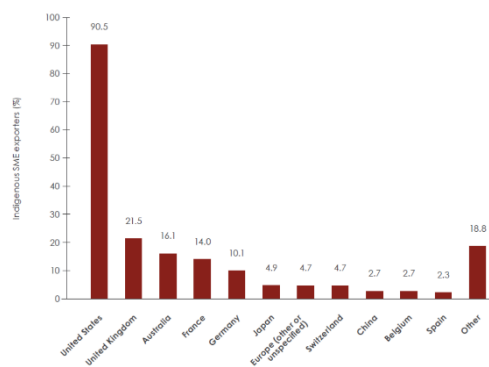


Figure 3. Top 12 destination markets for Indigenous Canadian SME exporters [28]

Digitalization is also “a game changer” for municipal governments. Local governments are about to undergo a dramatic change, fueled in part by the use of digital tools and procedures to improve their capabilities. Local governments have the power to drive and facilitate digitalization, which has enormous potential. It can promote environmental sustainability, increased governance effectiveness, economic growth, and openness. This transformation is being driven by technologies like Digital Twins, Blockchain, AI, and the Internet of Things (IoT). They provide inclusive service delivery, improve governance, and provide intelligent and sustainable urban systems. Together, the revolutionary effects of digitalization strengthen community resilience, redefine local governance, and open the door to just and sustainable societies [44].

To fully utilize the potential of digitization, a multilayered governance framework is necessary. This strategy includes broad stakeholder involvement, strategic planning that is in line with national and regional policies, and a thorough review of the current operational status. Building capacity, allocating resources, and using cooperative techniques like public-private partnerships and intergovernmental collaboration are crucial to this process. To evaluate the effects of digital initiatives, local governments must create strategies for include stakeholders, encourage innovation and confidence in IT infrastructure, and

put in place systematic monitoring and evaluation processes [29].

Furthermore, a large number of municipal governments all over the world have already created efficient AI-powered policies and plans to address the difficulties and problems they encounter, particularly when it comes to encouraging the development of human capital.

Around the world, new applications of AI in municipal government are being discovered on a daily basis. These could range from straightforward applications of AI to a particular problem to large-scale ones powered by the latest advancements in generative AI. For instance, the Danish town of Slagelse started a ground-breaking project that uses AI to transform the way decision-makers get information. Through earlier and more regular participation in policy formation, rather than just review, this ground-breaking effort aimed to redefine citizen engagement and move it from passive observation to active participation in formulation [66-68]. The project also sought to increase involvement diversity by enticing a wider spectrum of people to provide policymakers with their distinct viewpoints and thoughts. Slagelse took inspiration from Frédéric Laloux’s book “Reinventing Organization” after realizing there was a growing divide between citizen participation and expanding responsibilities. Motivated by the fundamental idea that utilizing the knowledge and creativity of the populace would maximize results for all inhabitants, their main objective evolved into creating the most ideal living environments within the municipality [23].

In order to include local populations in creating strategies or solutions for urgent societal and environmental issues, Hsu et al. [27] investigate the use of AI-powered platforms. These local contexts frequently include a number of stakeholders with disparate, sometimes conflicting goals, which leads to misplaced assumptions regarding the actions of these systems and the desired results. The authors argue that through co-creation and field deployment, it is necessary to explore if AI models and pipelines can function as intended in various circumstances. Our explanation of the issues that need more attention and our suggestions for workable solutions to connect AI research with citizen demands are based on case studies of local people and AI-powered system co-creation. Hsu et al. promote the creation of new mindsets and collaborative strategies that are required to co-create AI-powered systems in multi-stakeholder settings in order to address regional issues.

Using a researcher-centered strategy, university academics usually take the lead in developing AI systems because they have greater influence over local populations, particularly underprivileged ones, in terms of accessible resources and scientific authority. Underprivileged groups may suffer as a result of this unequal power dynamic and a lack of trust [18]. This researcher-centered method is predicated on the idea that scientists and designers are able to put themselves in the shoes of locals and understand the viewpoints of the local population. However, due to their privileged socioeconomic status and potential cultural or geographic origins, university academics may find it difficult to fully and truly comprehend the experiences of the local population [23]. Researchers can only genuinely value community knowledge and be open to integrating local communities, particularly those most affected by the issues, in the creation of AI systems if they acknowledge this vulnerability and acknowledge the power imbalance.

The use of AI has the potential to significantly enhance the services that local governments provide. But there is danger involved, so any firm looking to participate in this market needs to strike a balance between enthusiasm and prudence. The legal foundation for AI is still developing on a global scale. To properly manage their AI-driven goods and services, organizations need proactively implement “AI Hygiene” procedures [18]. This requires a few crucial steps:

- To find out which AI-driven products the company and its clients are using, conduct an internal audit
- Learn in-depth information about the movement and use of data throughout the company. This analysis is essential for figuring out whether information barriers or organizational restraints are required to reduce privacy hazards
- Analyze the present AI-related regulatory landscape. Make use of these observations to assess and revise all pertinent policies and procedures. This entails making certain that rules pertaining to information security, privacy, and consumer interaction are appropriate and compliance with current laws
- Embrace best practices in AI development by following global guidelines established by organizations like the ISO and NIST
- Examine client contracts to make sure that, in the context of the pertinent AI goods, privacy, responsibility, indemnity, and intellectual property rights are sufficiently addressed

All the above-described vectors should be combined in agile and well thought-out state policy, with the development of appropriate incentives taking into account the current and prospective state of the art in technological, economic, and social development in a global, national, regional, and local space.

#### Literature:

1. Amin, A., Som, A., Ibrahim, Y., Shalladin, M. (2018). Relationship between community participation, socio economy and organizational capacity on sustainable development. *International Journal of Engineering & Technology*, 7(4.34), 140.
2. Anttiroiko, A.-V., Laine, M., & Lonnqvist, H. (2016). Metropolitan strategies for global innovation networking: the case of Helsinki. *International Journal of Innovation and Regional Development*, 7(1), 20.
3. Atamanchuk, Z., & Syrotin, O. (2023). The role of global cities in modern international economic relations. *SWorldJournal*, 3(22-03), 97-102.
4. Avedyan, L., Gavkalova, N., & Belyavtseva, V. (2023). The effectiveness of the development of territories in the state regional system politicians. *Financial and Credit Activity Problems of Theory and Practice*, 4(51), 333-344.
5. Baily, M., Bosworth, B., & Kennedy, K. (2021). *The contribution of human capital to economic growth: A cross-country comparison of Germany, Japan, and the United States*. Economic Studies at Brookings.
6. Baltgailis, J., & Simakhova, A. (2022). The Technological Innovations of Fintech Companies to Ensure the Stability of the Financial System in Pandemic Times. *Marketing and Management of Innovations*, 13(2), 55-65.
7. Bashtannyk, A., Kveliashvili, I., Yevdokymov, V., Kotviakovskiy, Y., & Akimov, O. (2021). Legal bases and features of public administration in the budget sphere in Ukraine and foreign countries. *Ad Alta: Journal of interdisciplinary research*, 1(1), XVIII, 63-68.
8. Biddle, N. (2018). *Human capital development and Indigenous peoples*. Routledge.
9. Bobrovska, O.Y., Lysachok, A.V., & Kravchenko, T.A. (2021). The current state of investment security in Ukraine in the context of covid-19 and its impact on the financial and economic situation of the state. *Financial and Credit Activity-Problems of Theory and Practice*, 1(36), 233-242.
10. Bondar, O., Petrenko, G., Khalilov, A., & Vahonova, O. (2022) Construction Project Management Based on the Circular Economy. *IJCSNS. International Journal of Computer Science and Network Security*. Vol. 22. No. 9. pp. 630-635. DOI: 10.22937/IJCSNS.2022.22.9.82
11. Borodin, Y., Sorokina, N., Tarasenko, T., Volkova, N., Akimova, L., & Akimov, O. (2023). Social Policy Development In The Conditions Of Digital Transformation Of Society. *Ad Alta: Journal of interdisciplinary research*, 13(01), XXXIV, 40-46. DOI: 10.33543/1301344046
12. Borrows, J., & Shwartz, R. (2020). *Indigenous peoples and international trade*. Cambridge University Press.
13. Borysenko, O., Kitsak, T., Pasichnyi, R., & Karpa, M. (2022). Features of the Implementation of Public Authority in the Context of Modern International Security Challenges: Information Component. *IJCSNS. International Journal of Computer Science and Network Security*. Vol. 22. No. 8. pp. 123-128. DOI: 10.22937/IJCSNS.2022.22.8.16
14. Bye, B., & Faehn, T. (2021). The role of human capital in structural change and growth in an open economy: Innovative and absorptive capacity effects. *The World Economy*, 45(4), 1021-1049.
15. Canadian Council for Aboriginal Business and Global Affairs Canada (2023). Adawe: export experiences of Indigenous entrepreneurs. [https://www.international.gc.ca/trade-commerce/inclusive\\_trade-commerce\\_inclusif/indigenous-autochtone/export-experiences-exportation.aspx?lang=eng](https://www.international.gc.ca/trade-commerce/inclusive_trade-commerce_inclusif/indigenous-autochtone/export-experiences-exportation.aspx?lang=eng)
16. Cebula, J., Chygryn, O., Chayen, S. V., & Pimonenko, T. (2018). Biogas as an alternative energy source in Ukraine and Israel: Current issues and benefits. *International Journal of Environmental Technology and Management*, 21(5-6), 421-438.
17. Chakraborty, B. (2010). *Human capital and economic growth: Theory and Policy*. VDM Verlag.
18. Chiancone, Ch. (2023). *Smart government: Practical uses for artificial intelligence in local government*. GRIN Verlag.
19. Chowdhury, W., Fjellström, D., Osarenkhoe, A., Hannadige, S. (2022). The contribution of innovation hubs towards strengthening the regional development in Sweden. *International Journal of Innovation and Technology Management*, 2, 1-20.
20. Dzwigol, H. (2021). Meta-analysis in management and quality sciences. *Marketing and management of innovations*, (1), 324-335.
21. Ferdman, H. Filippova V., & Kozak I. (2024). Innovation Defense Clusters - An Effective Driver Of Defense And National Security Of Ukraine. *Ad Alta: Journal of interdisciplinary research*, 14(01), XLI - PP. 201-206.
22. Gaievska, L., Karlova, V., Bobrovska, O., Kulynych, M., Akimova, L., & Akimov, O. (2023). Public-Private Partnership As A Tool For Implementing State Policy. *Ad Alta: Journal of interdisciplinary research*, 13(01), XXXIV, 21-30. DOI: 10.33543/1301342130
23. Gaudet, M. (2023). *1001 prompts for unlocking generative AI in local government*. GRIN Verlag.
24. Gavkalova, N., Akimova, L., & Akimov, O. (2023). Anti-crisis Management Mechanism in the Digital Age. *Marketing and Management of Innovations*, 14(4), 188-199. <https://doi.org/10.21272/mmi.2023.4-14>
25. Gleason, A. (2022). *International trade*. Willford Press.
26. Halushka, Z. Bobrovskiy, O. & Kharechko D. (2024). State Policy Of Wellbeing In The Face Of Global Challenges: Problems Of Socialization, Socio-Economic Transformation Against The Background Of The Introduction Of Digitalization And Artificial Intelligence Technologies. *Ad Alta: Journal of interdisciplinary research*, 14(01), XLI - PP. 195-200.
27. Hoffecker, E. (2018). *Local Innovation: what it is and why it matters for developing economies*. Local Innovation Group.
28. Hsu, Y.-Ch., Huang, T.-H., Verma, H., Mauri, A. (2022). Empowering local communities using artificial intelligence. *Patterns*, 3(3), 100449.
29. ICLEI (2023). Digitalization: A game changer for local governments & communities. Policy Brief.
30. Jalaskoski, R. (2023). *Integrating Indigenous entrepreneurship into the global economy: Identifying the main obstacles and opportunities of indigenous-led ventures in Peru*. Aalto University School of Business.
31. Karpa, M., Akimova, L., Serohina, N., Oleshko, O., & Lipovska, N. (2021). Public administration as a systemic phenomenon in society. *Ad Alta: Journal of interdisciplinary research*, 11(1), XV, 56-62.
32. Kitsak, T., Karpa, M., Domsha, O., Zhuk, O., & Akimov, O. (2023) Artificial Intelligence As A Tool Of Public Management Of Socio-Economic Development: Economic Systems, Smart Infrastructure, Digital Systems Of Business Analytics And Transfers. *Ad Alta: Journal of interdisciplinary research*, 13(01), XXXIV, 13-20. DOI: 10.33543/1301341320

33. Koibichuk, V., Ostrovska, N., Kashiyeva, F., & Kwilinski, A. (2021). Innovation technology and cyber frauds risks of neobanks: gravity model analysis. *Marketing and management of innovations*, (1), 253-265.
34. Koshova, S., Lytvynova, L., & Kaliuzhna, S. (2022). Regulatory and Legal Aspects of Information Support for the Provision of Administrative Services in the Field of Public Administration as a Communicative Culture of a Public Servant. *IJCSNS. International Journal of Computer Science and Network Security*, Vol. 22 No. 9 pp. 595-600.
35. KPMG (2017). The changing landscape of disruptive technologies: Global technology innovation hubs. [pdf document].
36. Kryshtanovych, M., Gavkalova, N., & Shulga, A. (2022). Modern Technologies for Ensuring Economic Security in the Context of Achieving High Efficiency of Public Administration. *IJCSNS. International Journal of Computer Science and Network Security*. Vol. 22, No. 2, pp. 362-368.
37. Kulikov, P., Anin, O., Vahonova, O., & Niema, O., (2022). Scientific and Applied Tools for Project Management in a Turbulent Economy with the Use of Digital Technologies. *IJCSNS. International Journal of Computer Science and Network Security*. Vol. 22, No. 9, pp. 601-606.
38. Kwilinski, A., Lyulyov, O., Dzwigol, H., Vakulenko, I., & Pimonenko, T. (2022). *Integrative smart grids' assessment system. Energies*, 15(2), 545.
39. Levytska, S., Pavlov, C., Kupchak, V., & Karpa, M. (2019). The role of accounting in providing sustainable development and national safety of Ukraine. *Financial and credit activity: problems of theory and practice*, 30 (3), 64-70. DOI: 10.18371/FCAPTP.V3I30.179501
40. Liubkina, O., Murovana, T., Magomedova, A., Siskos, E., & Akimova, L. (2019). Financial instruments of stimulating innovative activities of enterprises and its improvements. *Marketing and Management of Innovations*, 4, 336-352. DOI: 10.21272/MMI.2019.4-26
41. Marchenko, A., Akimova, L., & Akimov, O. (2021) The current state of ensuring the effectiveness of coordination of anticorruption reform. *Ad Alta: Journal of interdisciplinary research*, 11(2), XX, 78-83
42. Mihus, I., Koval, Y., & Dmitrenko, V. (2020). Improvement of the methodological approach to assessing the impact of public governance on ensuring the economic security of the state. *Financial and Credit Activity-Problems of Theory and Practice*, 4(35), 180-190. DOI: 10.18371/fcaptop.v4i35.221969
43. Mihus, I., Laptev, S., & Gaman, N. (2021). Influence of corporate governance ratings on assessment of non-financial threats to economic security of joint stock companies. *Financial and Credit Activity: Problems of Theory and Practice*, 6(41), 223-237. DOI: 10.18371/fcaptop.v6i41.251442
44. Momot, T., Triplett, R., Azueta, C., Filonych, O. (2023). *Smart city in the global economy: Information and organization support development*. IGI Global.
45. Montinari, L., & Rochlitz, M. (2014). Absorptive capacity compared: Evidence from sectoral data of OECD, Asian and Latin American countries. *Applied Econometrics and International Development*, 14(2), 25-47.
46. Novak, A., Bashtannyk, V., Tkachenko, I., Terska, S., Akimova, L., & Akimov, O. (2022) Anti-corruption as a component of state policy. *Ad Alta: Journal of interdisciplinary research*, 12(1), XXV, 79-87.
47. OECD (n.d.). *Indigenous communities*. <https://www.oecd.org/en/topics/indigenous-communities.html>
48. Pelinescu, E. (2015). The impact of human capital on economic growth. *Procedia Economics and Finance*, 22, 184-190.
49. Pernotta, C., Rizzello, S., & Bunna, C. (2023). *Human capital: The driving force for economic development*. Palgrave Macmillan.
50. Ratte, K., Anderson, T., & Leeds, S. (2022). *Renewing indigenous economies*. Hoover Institution Press.
51. Razumei, M., Kveliashvili, I., Kazantsev, S., Hranik, Y., Akimov, O., & Akimova, L. (2024). Directions And Prospects Of The Application Of Artificial Intelligence In Customs Affairs In The Context Of International Relations. *Ad Alta: Journal of interdisciplinary research*, 14(01), XL, 179-186. DOI: 10.33543/j.140140.179186
52. Romer, P. (1990). Endogenous technological change. *Journal of Political Economy*, 94, 1002-1037.
53. Rosłoń, D., Lukianchenko, D., Zlenko, S., Kulibaba, O., Akimov, O., & Akimova, L. (2023). European Standards Of The Rights Of The Parties To The Case In The Application Of Civil Action Enforcement Measures And Their Implementation In Ukraine. *Ad Alta: Journal of interdisciplinary research*, 13(02), XXXVII, 12-21. DOI: 10.33543/j.130237.1221
54. Romyk, I., Laptev, S., Sehed, S., & Karpa, M. (2021) Financial support and forecasting of food production using economic description modeling methods. *Financial and Credit Activity: Problems of Theory and Practice*, 5(40), 248-262.
55. Ryan, A. (2023, August 26). Living Labs: Transforming cities into innovation hubs for community solutions. *LinkedIn*. <https://www.linkedin.com/pulse/living-labs-transforming-cities-innovation-hubs-community-adam-ryan/>
56. Shavarskyi, I., Falshtynskyi, V., Dychkovskyi, R., Akimov, O., Sala, D., Buketov, V. (2022). Management of the longwall face advance on the stress-strain state of rock mass. *Mining of Mineral Deposits*, 16 (3), pp. 78-85. DOI: 10.33271/mining16.03.078
57. Smyrnova, I., Krasivskyy, O., Shykerynets, V., & Babych, A. (2021). Analysis of The Application of Information and Innovation Experience in The Training of Public Administration Specialists. *IJCSNS International Journal of Computer Science and Network Security*, 21, 3, March 2021, 120-126.
58. Son, H. (2010). *Human capital development*. Asian Development Bank.
59. Sukhova, K., Borodin, Y., Tarasenko, T., Komarova, K., Akimova, L., & Akimov, O. (2022). Organizational mechanism of state management of social services in territorial communities. *Ad Alta: Journal of interdisciplinary research*, 12(1), XXVII, 188-192.
60. Tenasco, S. (2024, March 6). Indigenous trade: A path to global empowerment and cultural preservation. *LinkedIn*. <https://www.linkedin.com/pulse/indigenous-trade-path-global-empowerment-cultural-sunshine-tenasco-jc54e/>
61. Trosper, R. (2022). *Indigenous economics: Sustaining peoples and their lands*. University of Arizona Press.
62. Van Reenen, J. (2021). Innovation and human capital policy. *NBER Working Paper Series*, Working Paper 28713.
63. Vasylevska, T., Shevchenko, S., Sydorenko, N., Gradvivskyy, V., Akimova, L., & Akimov, O. (2022). Development Of Professional Competence Of Public Servants In The Conditions Of Decentralization Of Public Authority. *Ad Alta: Journal of interdisciplinary research*, 12(2), XXIX, 61-66.
64. WEF (2022, August 5). How Indigenous peoples are reshaping modern economies. <https://www.weforum.org/agenda/2022/08/how-indigenous-peoples-are-reshaping-modern-economies/>
65. Zahorskyi, V., Bobrovskyi, O., Bondarenko, D., & Karpa, M. (2022). Ensuring Information Security in the System of Public Management of Sustainable Development of the Region: EU Experience. *IJCSNS. International Journal of Computer Science and Network Security*. Vol. 22, No. 8, pp. 163-168.
66. Zaiachkivska, O.V., Levytska, S.O., Karpa, M.I., & Gupta, S.K. (2020). Modern analytical instruments for controlling the enterprise financial performance. *Financial and Credit Activity-Problems of Theory and Practice*, 2(33), 314-323.
67. Ziabina, Y., & Navickas, V. (2022). Innovations in energy efficiency management: role of public governance. *Marketing and management of innovations*, (4), 218-227.
68. Zilinska, A.S. Gavkalova, N.L. Avedyan, L.Y., & Kyrchenko, Y.V. (2022). Efficiency In The Context Of Ensuring Sustainable Territorial Development. *Financial and Credit Activity Problems of Theory and Practice*, 4(45), 234-243. DOI: 10.55643/fcaptop.4.45.2022.3830

**Primary Paper Section: A****Secondary Paper Section: AL**

## FEATURES OF LITERARY MODELING OF THE EAST IN THE WORKS OF MYKHAILO STARYTSKYI

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**Abstract:** The article, based on the historical and literary approach and the systematic research paradigm, examines aspects of the work of Mykhailo Starytskyi, namely, oriental motifs in his work, their literary modeling. The main research method is literary analysis within the framework of a systems approach. The results and conclusions of the research open up new opportunities in the study of issues of the theory and history of literature, in particular the problems of genre, historicism, and inter-literary connections; in the formation of new approaches to understanding the legacy of M. Starytskyi and his place in the Ukrainian literary process of the end of the 19th century – beginning of 20th century; in new theoretical and concrete-historical studies on the history of Ukrainian literature, in the field of comparative studies.

**Keywords:** Mykhailo Starytskyi; fiction; Orient; image; Ukrainian identity.

### 1 Introduction

The geocultural and political aspirations of Ukrainian "late" romantics and realists of the late 19th and early 20th centuries addressed the complex artistic task of recreating a different eastern world, highlighting its connections with their homeland. These works depict characters of various social statuses, ages, nationalities, and confessional affiliations, as well as individual preferences [1; 2]. Such profound penetrations are characteristic of the best literary works of Mykhailo Starytskyi. In his dramaturgy and prose, orientalism appears more frequently than in his poetry. In his lyric-epic poem "Morituri", a subtle layer of artistically mastered Orient is already present. After the trilogy "Bohdan Khmelnytskyi", the motif of "the glorious Bohdan" leaving the Berestechko field to stop Hirey is minimized (in contrast to Naum Shram's work). The second song shifts the action to the "magnificent tent of Tsargrad", where the king, the sultan's envoy, and knights celebrate victory together. Their cold weapons are decorated with ornate Turkish enamel, which is read as a code and recognition of Eastern craftsmanship by the West.

The artistic work of Mykhailo Starytskyi, as the fruit of his extraordinary talent, at the same time relied on the rich experience of Ukrainian and world literature, was and is an integral part of it. The writer's historical fiction not only contributed to the renewal of the ideological and thematic horizons of Ukrainian literature at the end of the 19th and the beginning of the 20th centuries, the search for visual and expressive means in the artistic development of reality, but also brought Ukrainian literature to the European level.

### 2 Method

The article represent a historical and literary research. A systematic approach has been applied, the choice of which is due to the fact that for the systemic approach the dynamics of the phenomenon is accessible, as well as the mutual transition of quantitative and qualitative changes, the dialectical contradictions of evolving systems, and finally, the systematic approach has "openness" in relation to comparative historical, historical genetic and other methods of research, has repeatedly proven its effectiveness.

The following methods were also used to solve the tasks: descriptive, typological, comparative.

### 3 Results and Discussion

The Orient is most prominently featured in two plays by Mykhailo Starytskyi: the historical hero-centric dramas "Bohdan Khmelnytskyi" (1895) and especially "Marusia Bohuslavka" (1899). The first play, like most historical works by 19th-century Ukrainian authors, shows a dependence on the negative and

widely cultivated image of the treacherous Easterners. They are depicted as capable of selling even their own father into slavery for gold ducats, as exaggeratedly stated in the play. Interestingly, Starytskyi simultaneously debunks this stereotypical heteroimage of the Tatar: in "Marusia Bohuslavka", it is a Ukrainian Cossack who sells his own sister to a Tatar. The fourth act dramatizes the external diplomatic maneuvers of the hetman. In an exchange with the Turkish envoy, Khmelnytskyi expresses his "heavenly delight" in the Eastern grandiloquence at the "clear" Sultan's intention to take Ukraine under his "strong hand". The envoy's complimentary response reveals the author's mastery of the spirit and nature of Eastern oratory: the hetman's mind is clear, like "the moon in the night".

However, the subsequent mass scene reveals the complexities of the alliance with the Porte and Crimea, evidenced by the Cossacks and Tatars camped together at Berestechko. These complexities are rooted in the historical backdrop of armed conflicts between the peoples. This is symbolically represented by the song about the Cossack Sokhron, who went to fight the Horde but ended up in a Tatar prison. Starytskyi, dreaming of harmonizing interethnic relations, innovatively (for the first time in Ukrainian domestic drama and theater) attempted to balance the song component of the work with the life trials of both Ukrainians (Sokhron) and ordinary Tatars. At the beginning of Act V, a Tatar group sings in their native language accompanied by the zurna: "Min el hamde lillyan / Tuyganca osadim; / A shab tuy masan / Ya lab tuy masan!" [3, p. 135] Symptomatically, the Tatar song (actually a widespread proverb), sad in tone, does not resonate with the Ukrainian hearts in Starytskyi's work. The Cossacks, accustomed to what they consider more melodic songs, compare such singing to the howling of wolves in winter in a display of "black humor". The author ignored the humorous undertones of the song's words, possibly because he did not aim to depict the worldview of the Easterners but rather to break up the action with musical interludes. Nonetheless, the fact remains that, for the first time, a song in Crimean Tatar was performed on the stage of a Ukrainian professional theater.

The path to alliance and good-neighborly relations between Crimea and the state of Khmelnytskyi appears challenging in the playwright's depiction. Starytskyi subjects it to trials through the Sultan's demands and the mistrust of influential colonels. For instance, Bohun questions the loyalty of Tugay Bey and the Tatars to previous agreements, but Khmelnytskyi confidently replies: "It cannot be that Tugay Bey, my friend, / Whom I saved from death twice, / Has betrayed me!" [3, p. 149]. However, the news of the Tatars' escape portrays them as unreliable allies and the hetman as their accomplice, selling Ukraine's freedom. Ultimately, in the author's view, this historical and political alliance between the East and the West is severely complicated by the Pereiaslav Council and Khmelnytskyi's death.

The author's titles for the prologue and the first acts of "Marusia Bohuslavka" - "The Brother Sold His Sister!", "The Lost Paradise", "Converted to Islam" - quite definitively introduce the world of the Orient and its relations with Cossack Ukraine. The same applies to the list of characters. The Near East is represented by Murza, Pasha, Marusia's husband Hirey, eunuch Ahmet, and overseer Islam Bey. Hirey does not fit the stereotype of a cruel Eastern enemy; rather, he appears in the role of a lover-hero, capable of making Marusia fall in love with him: "Handsome, passionate, poetic".

The events of the work are initially set in the hypothetical steppe of Budjak – somewhere on the east-west border. This defines their outward appearance – some of the maidens of tavern are dressed in Turkish attire. Their speech is marked by oriental

<sup>1</sup> In modern Crimean Tatar, this sounds as follows: „Elhamdilla men / Toyganca asadim / Aşap toymasan / Yalap toymaşsın“. A free translation of this would be: "Praise be to God (formula), I have eaten / I am full. / And if you are not full - / You will not lick it clean".

etiquette formulas. For example, a girl addresses the bey as “Most Radiant Ray of the Sun”, and the ideal Oriental compliments her in response: “...flower from Ai-Petri! Even the morning eastern breeze would be happy to hug you” [3, p. 178]. The poeticism of the beys and the elevated style of love tirades are oriented towards idealized Ukrainian beauties. “You won’t find their equal”, confesses the hero, “except perhaps under the tents of Edenic gardens”. But one “djaurka” is worth ten Gurias, the daughter of the muezzin of Bohuslav, who struck Hirey right in the heart: “” swear by the beard of the prophet, there is no pearl like her in the blue sea, there is no star like her in the sky!” The dynamics of the leader’s internal states are reflected by the Tatar speech of the bey. Among other things, the sacred formula “Lā ilāha illā allāh, Mu ammādu rasūl allāh... Alaykum!” is inaccurately reproduced here, particularly in connection with the girl (“Oh my paradise! Lā-il-lā-ga alaykum”<sup>2</sup>). A joy of winning her being wo is also expressed in the religious formula of a believing Muslim: “Allāh karīm!! [Allah’s commandment – Author] Mine, mine!!!”

Around the heroine, the playwright has woven intrigue. With the help of the cunning Khaim and gold, the bey proposes to Stepan to sell his sister - not into slavery, but into marriage in a “splendidly lush paradise”, making her the mistress of countless treasures. Starytskyi’s drama plot is constructed on the basis of adventurous twists: from the borderlands of the Budjak steppe, the Tatar raid secretly penetrates as far as Bohuslav (albeit with Stepan’s assistance) and seizes Marusia. The setting for other “unhappy” is the Islamic world. Characters, including Marusia’s mother, who dressed in the gypsy dress - in her will but to seek her daughter, converge in this place. Like P. Kulish and D. Mordovets, M. Starytskyi romanticizes the natural and man-made beauty of the Muslim, albeit hypothetical, Orient, with its white minarets and azure sea. An example is the remark “Luxurious pavilion with marble stairs. Around it, a lush garden with flower beds, fountains, and various decorations”. The song “The leaf flutters, the flower wilts...” filled with the eastern highlighted beauties of nature and lyrical sentiment, is performed under the supervision of the eunuch by a choir of odalisques, accompanied by zurnas.

Instead of finding solace in song, the melancholic Marusia, in her golden prison, reflects in a feminist spirit of later centuries on the sad fate of Eastern women. She perceives its echo as “heavy, tedious” Tartar songs of harem “companions”. Even the graceful dances of the odalisques do not bring her joy; she finds their “sleepy movements” lacking fire (a Western narrow view of Eastern choreography). She somewhat livens up observing the twisting original dance of the black “Arab children” boys. However, the Ukrainian is accustomed to paired dancing. In the Eastern “divertissement” arranged by the Pasha, she prefers the lively lezginka with daggers performed by two pairs of Circassians. In it, she sees resemblance to her native dances, though she considers the Cossack dance “more spirited”.

As the author shows, the heroine’s soul is dominated by the dramatic consciousness of a woman torn from her homeland, “permanently enslaved”. Her psychological relief comes from her love for Hirey, who considers Marusia his sole and absolute “hany”, and her maternal feelings towards their children. Through an “anti-colonial” comparison of Marusia, dialogue with Hirey challenges the status of women: in the East: she is only a “slave” and “concubine”, whereas in Ukraine, women have rights almost equal to the Cossacks. The Pasha justifies the established order with a Quranic prohibition, yet he has actually violated Sharia and custom by keeping only one “hany” and not disbanding the harem due to public opinion. Starytskyi’s anti-historical imposition of Western norms on Eastern traditions goes so far that Hirey swears by the name of the Prophet not to destroy Ukraine. However, he is not an autocrat; he answers to the Padishah and there is still the Divan over him.

The mentioned architectural and natural charms of Eastern civilization with its marble-crystal palaces and pointed minarets, fragrant gardens and boundless sea, in the dialogue between Marusia and Lesia, where even the cypress reminds Lesia of a “funeral candle”, provide grounds for a nostalgic comparison with Ukraine. It is significant that M. Starytskyi, going against his own beliefs, places philosophical rhetorical questions in Marusia’s mouth: is “everything foreign bad?” And can one not love a foreign land when “all love is just habit” (through the dialectics of the work and the evolution of the heroine, it is proven that it is far from being entirely so).

The stories of Marusia and Lesia indirectly reveal the persistence of Eastern men, the Pasha, and Lesia’s Tatar lover in winning their beloved women, the fervor of their hearts in seeking reciprocity. The outcome of Act VI is illustrative in emphasizing the Pasha’s fidelity to his wife, without whom his domestic paradise would seem like a desert to him, and with her presence, it whispers differently and more gracefully. In a lyric of love, Hirey addresses his Eastern “Song of Songs” to his “radiant hany”, where the white brow of his beloved, in accordance with oriental imagery, outshines “the snows of Mount Lebanon”.

Ahmet’s assertion that he is actually a compatriot of the “noble hany” reveals the extent of the Crimeans’ trust in Ukrainians - strong in keeping their word, responsible in managing the harem. Ahmet fully mastered the high etiquette style: “Mistress, beauty of all beauties...” The behavior and appearance of Marusia’s children (the boy only being connected to the Turkish world through his fez) reveal their Ukrainian identity inherited from their mother. Yet, this does not prevent the idealized “falcon” father from loving his eaglets as he loves his Qur’an, like the scent of lilies.

The third act diversifies the key imagery of “Crimean captivity” typical for romantic literature, as well as the emotional and stylistic palette of the work, with Cossack humor in the remarks of the captive “djaura”. For instance, Ohrym ironically characterizes captivity as “marvelous”, because they not only put stones under your head and stretch Cossack strength with hard labor, but the “kavadzhi” scratch your body with a shovel. One of the overseers of the beating accompanies it with Eastern curses (dogs, pigs, devilish spawn) and promises to tear belts from the prisoners’ skins. The cruelty towards captives in the Islamic world is also evident in the fact that Turkish infantry is ready to immediately crush any their uprising.

The scornful (the land of “asps, clumsy fanatics”) and lyrical style of “Eastern flourishing” (addressing the daughter as the grand hany, “brighter than the lord of the Eastern sun”) quickly and organically becomes familiar to Mistress Hanna. Even adventurous “forays” contribute to M. Starytskyi’s contrasting depiction of two worlds. For instance, Marusia’s mother, dressed as a gypsy, tests her daughter with comparisons of the Port and the “wild land of the ghaur”. Marusia herself, personifying the factor of bringing together two worlds and a “medium” between the realities of Western freedom and Eastern captivity, successfully endures this trial with dignity.

The final act substantiates the concepts of freedom and captivity. The former is embodied by a luxurious house with “pillars, a wide porch, marble stairs”. The latter is represented by a prison with an iron gate, where captives are punished, surrounded by walls and chains that enclose the city. When all the faithful respond to the muezzins’ call (“Aleykum el, Ramzan!” – “Lya illiaga / I Iya allahu Magomet rasu”), and go for the night to the mosque of Ali, Marusia, hiding the stolen keys, sets free the Cossack prisoners. The heroine granted them Easter liberation at a high cost. By resolving a dramatic bifurcation between two worlds and civilizations this way, she condemned her children to a life without a mother, herself to destroying, and the city and her husband to bloody revenge. The finale of the oriental drama takes on the characteristics of a liberation myth. In it, the Cossacks bid farewell to their liberator not on the “bakhmetiks of Turkish winddrivers Araps”, but on fast galleys with cannon salvos, from which “palaces and prisons crumble in fire”.

<sup>2</sup> It should sound like this: „Lā ilāha illā allāhu Muḥammadun rasūlu allāh“, which means „There is no god but Allah, and Muhammad is His messenger“.



Mikhailo Starytskyi, as a novelist, contributed no less to the development of Ukrainian oriental literature at the end of the 19th century than he did in drama or poetry. Evidence of this lies in his trilogy about Bohdan Khmelnytskyi, including his alliance with the Crimean Khanate and his brotherhood with Tugay-bey. The historical epic was composed of the novels "Before the Storm", "The Storm", and "At the Pier", which were published gradually during 1895-1897 in the "Moskovskiy Listok". Preparation for this work, as indicated by the author's notebook from 1891, involved studying sources from the history of Poland, Ukraine, Crimea, and collections of documents, chronicles, and historical works by Ukrainian, Polish, Russian authors, and more. All of this heightened the authenticity of orientalism in the trilogy.

The introductory acquaintance of the readers with the two horsemen ("Before the Storm") allows one to appreciate the classic Tatar type of youth: tanned face, hair curly as "raven wings curly hair", narrow eyes and wide cheekbones. Other external features of the portrait, intriguingly, indicated Ahmetka's half-Ukrainian blood. The lyrical-romantic scene with Oksana clarified the tragic historical retrospective: he is the descendant of a kidnapped Ukrainian woman whom a Tatar killed during a Cossack raid on his ulus, leaving behind their son. This episode largely reproduced the fantastical Western perceptions of the East and its peoples in the 17th century. In particular, Oksana heard such absurdities: "Tatars are born blind like puppies and don't see for nine whole days"; "across the sea live black people who walk with their heads down and their feet up" [3, p. 194].

Khmelnytskyi, like his adopted son, also reveals himself in the "oriental" biographical aspect. The hero recounts his capture at the Battle of Cecora, captivity in Skutari and Karasubazar, and his ransom. The dialogue with Prince Jeremi Bohdan reflects his evaluations of Poland's relations with the Porte and Crimea, shaped by his experiences and reflections. The role of the Cossacks in defending the frontier lands is outlined as follows: only the Zaporozhians from the desert plains of the Dnipro can stand against the hordes of wild steppe warriors led by the Khan. The ranks of the Sich Cossacks could also be replenished, as the openness of the "glorious community" is emphasized by Ganja, by a Tatar or Turkish. It was enough to read "I believe" and cross oneself.

Until the future time of his hetmanship, as in his conversation with Chancellor Ossoliński, he camouflages Ukrainian "interests" by interpreting international politics in favor of the Polish-Lithuanian Commonwealth. Thus, he rejects the accusation of breaching peace with the East: "...can we call the unbelieving robbers-basurmans and Tatars peaceful neighbors? They do not recognize the rights of our state or its borders; they constantly invade our homeland like ravenous wolves, bringing death and ruin, taking citizens captive" [3, p. 430].

In accordance with historical truth, the novelist embodied the international political paradigm of "Europe against Asia", revealing the aspirations of Władysław IV to "crush the Tatars" and establish his state as a world power [1], and at the same time, Venice's attempts to purchase Slavic swords "to the detriment of Islam" aimed to distract the Turks from Candia. The Venetian envoy entices the king with the possibility of toppling the "raised horns of the crescent moon", scattering the horde, and conquering Crimea with all its "wealth and luxuries", thus forming Poland from sea to sea.

The plot of the novel (15th century) develops the theme of the confrontation between the West and the East by depicting the "holy cause", from the Cossack perspective, of raids on infidels. One of the expedition leaders, Khmelnytskyi, plans to swiftly capture one of the coastal Turkish cities, Trebizond or Caffa, lighting his pipe from the flames (a genetically Shevchenko-like image). He is not concerned with booty or the liberation of captives, but, as M. Starytskyi writes in the same spirit of "romantic horror", with inflicting as much harm as possible on the fanatics and terrifying the shores of Anatolia so that the

shock reaches Constantinople itself and awakens the sultan on his carpets" [3, p. 275]. Even without considering fashionable approaches to the orientalization of literature and historical stereotypes of the Russo-Turkish wars, it must be asserted that the quote conveys the real tension between the states and peoples of Eastern Europe and the Near East.

The novel also reflected a lack of tolerance towards the language and neighboring ethnic groups: Morozenko is capable of "barking" in Tatar when needed. Such coarse associations with the sound of another group's language, especially from a nobleman, are rare. For example, they are absent when Marylka addresses "daddy" in Tatar, when Ganja greets the "little Tatar" Morozenko in Tatar (albeit with a mispronunciation), saying "Silyay aylekim yakshi!" or when Chernota, dressed as a Turk, and Khmelnytsky exchange phrases ("Selim-aylekim!" and "Hom-geldi!"). However, neither the ability to speak Tatar nor Morozenko's use of customary sacred Muslim rhetoric – "faithful brothers, Allah is great, and Muhammad is his prophet!" – nor his Tatar "legend" helped the young scout avoid capture by Tatar fishermen.

"Cross-eyed asps", "shaved dogs", "infidels" who must only be beaten – such, with few exceptions, is the prevalent image-stereotype of the Tatar or Turkish Other in Ukrainian historical literature. The reasons for this are obvious and understandable. The novelist, however, does not forget to at least partially harmonize the bloody pages of international relations (see the scene of the galley capture, XXI) with a display of non-solidarity with the "hellish picture" of violence and cruelty.

Marylka's recounting to Bohdan added to the gallery of Eastern negative archetypes with Tatar slave traders - dealers in human goods - and a lustful old man in an expensive silk robe. In the captive's perception, Caffa is associated with the opulent exterior of her prison-palace: pink marble stairs, carpets in which one's foot sinks, stone latticework walls, and a decorated ceiling. The architectural luxury of the Muslim world is matched in M. Starytskyi's description by the works of craftsmen of domestic art, all these shawls, pearls, and damasks, exotic dishes (sherbet and other famous delicacies, coffee, oranges). All this, along with performances by dancers and displays of tricks, turned out to be preparation for selling the beauty to a more expensive harem. The established system of the harem functions: Marylka adapts to "the narcotic atmosphere of Eastern languor and indolence" [3, p. 399], physically developing as if in a greenhouse. Thus, while still half a child, she begins to feel the power of her feminine charms, which captivated the hetman and not only him.

The work has a rather extensive Eastern "geography". Besides the already mentioned places, it includes Khadjibey, "Kimbürg", Akkerman, Kayalnik, Sarykol, Budjak, Kadima, and Yahorlyk - rivers that marked the beginning of Ukraine. The anxieties of the Jewish minority in turbulent times (Shmul, Rivka), the parallelism of Tatar images, suggest a certain intertextual significance for M. Starytskyi of N. Gogol's "Taras Bulba", T. Shevchenko's poetry, and possibly the works of H. Sienkiewicz, mentioned in the Ukrainian author's notebook.

Part IX of the next novel in the trilogy, "The Storm", symbolized the scale of the threat to Ukraine from Crimea with the alarming fires of watchful figures, depicted through various arts - from new literature (M. Starytskyi) to contemporary painting (Y. Yushko's painting "Danger", 1995). Behind the panic caused by these fires lies the tragic experience of the Western natives, familiar with the "Tatar trouble", and the influence of folklore tales about the countless "hordes of Tatars and the horrors of their horde's devastations". Ukraine's defenders, from their experience of repelling riders like Khmelnytskyi, are aware that in a clash with the Crimean Tatars, speed and pressure are crucial because "the Tatar is like the wind".

Upon learning from one of them, with eyes like of a "lean wolf", where the battalion had gone, the Cossack "effendi" or "murza" Bohdan, as the captive titles him, reveals to Koniecpcolski the

four-pronged strategy of the Tatar raids. This strategy allowed them to swiftly scour the area and, if repelled, to escape to their "ulus and sarai with the loot". Well-acquainted with the subject matter, the novelist accurately depicted the Tatar camp and the beginning of the battle, based on a combination of visual (the strength of the people, wagons, fires) and auditory impressions (the calls of the muezzins, the clamor from the sudden attack, "victory shouts"). In the atmosphere of fierce fighting, the episodes of peaceful communication become even more precious in the epic's concept. An artistic anticipation of the meeting between Khmelnytskyi and Tugay Bey - bonded by a "youthful" friendship through the custom of "blood exchange" and the fact that the Ukrainian saved Tugay Bey from death twice - is depicted in chapter XXVI. This scene features a rare friendly dialogue in Oriental Ukrainian battle literature between the Cossack leader and the young Murzen Kerim, whom Bohdan had once taught to handle weapons.

"Alla illyaha" ("My God!") - the Muslim youth greeted "the delight of his father Tugay's heart," "the glorious dzhigit", and "the falcon of the steppe". Bohdan also tactfully honored the young "swift-winged falcon" in the spirit of Eastern linguistic etiquette: "the beam of the bright moon". The scene of hosting in the tent is rich in Eastern exotic culinary color, with dishes like shashlik, pilaf, horsemeat, halva, sherbet, chihir, and kumis. The conversation during the feast aptly incorporated traditional and everyday realities: beyship, hanym, oath by the prophet's beard, and one of the two bairams<sup>3</sup>. Perhaps the best description in Ukrainian literature of the Arab-Tatar steed is found in this novel [3, p. 206].

Thus, the idea of understanding between the Cossacks and the Crimean Tatars is gradually developed. The horde "should not be provoked" [3, p. 389-390], Sulima insists in response to Teteria. Hetman Bohdan does not support the fluctuating Cossack group's mood to march against the "infidels" or the "unbelievers". As an advocate of reconciliation and friendship with the eastern neighbor, he emphasizes in the mass scene of Chapter XLVII: "The Tatar, though a heathen, keeps his word better than the Catholics and will help us defeat our sworn enemy..." [3, p. 350]. This foreign policy stance is further reinforced by memories of hospitality in Perekop with gifts and feasting, and his time as a hostage in Crimea. Retrospectively, through the recreation of Khmelnytskyi-ambassador's stay in Bakhchisarai while waiting for an audience with Islam Hiray, Starytskyi created a vivid, somewhat hyperbolized, Oriental image of the Crimean Horde leader's residence. It is described as "an extraordinary, magnificent palace; it exudes Eastern luxury; gilded halls decorated with arabesques, illuminated by multicolored windows, shine with fairy-tale splendor... under a lavish canopy, on satin, gold-embroidered cushions, sits the padishah [error, it should be: 'khan' - *Author*]; before him, Lebanese incense smokes, and a hookah smolders in his mouth" [3, p. 389-390].

Khmelnytskyi's speech in Tatar is notable not so much for its diplomatic "servile" expressions but for advocating the ideal of harmonious coexistence and the union of the two peoples. Despite the clashes and confrontations in their shared historical past, the speaker views the Crimean Tatars as "our glorious neighbors", "natural friends", and "brothers in valor". These warriors are worthy of the Cossacks' friendship. To implement this, the embassy offers the "sun of the East" friendship and an eternal alliance, even expressing readiness to fight for Muslim interests. The novelist was sufficiently knowledgeable about history to understand its peculiarities: everyone was both ally and enemy to everyone else. Starytskyi endowed the Crimean khan with an understanding of this historical axiom. The khan listened to the speaker with apparent sympathy but did not fully trust him. Therefore, the oath of loyalty before him and the divan was insufficient - Khmelnytskyi was forced, according to the old customs of the East and West, to leave his son as a hostage

(amanat). Even then, the cunning khan only allowed Tugay Bey to assist the Cossacks, and only after the Bairam holiday.

The pivotal event in the Oriental imagoperception of the novel "The Storm" is found in parts LII-LIII, depicting the joyful reunion of Bohdan and Tugay at the head of their armies - Cossacks in zhupans, Tatars in cherkesses, and Circassians in cherkesses and papakhas. The Cossack greeting to the Tatars, this time called upon and thus cherished guests, is met with the response "Tashgeldi! Barabar!" - expressions of blessing and friendship. In the romantic portrayal of the appearance of the mature Crimean Tatar, not as young as Kerym but reminiscent of Burunda-begadir from I. Franko's story "Zakhar Berkut", certain ethno-imagological traits are emphasized: the tan of the son of the sunny East; his physical strength (indicated by the figure of the hero-batyr); a smile, terrifying in its cruelty and threatening to enemies; and finally, the narrow slit of the eyes. Thus, individual and psychological traits are combined with Crimean Tatar lineage. The accuracy of this portraiture is indirectly confirmed by M. Cherniavskyi in his work "Bohdan's Introduction" (1901). Here too, we find Tugay-bey's smile, though not as terrifying - more in the eyes. It is also noteworthy that M. Starytskyi, when introducing some Tatar lexemes as needed, provided their Ukrainian equivalents, thus catering to the reader ("Stop! Saldyr!", "Yok pek! Didn't know!"). The friendly atmosphere of the conversation between the allied leaders is conveyed with characteristic Eastern metaphor ("Oh, my friend, dost - it is stronger than Damascus steel!" [3, p. 395]), and with idiomatic phrase openings ("Kardash! Dost!" - "Yok ter!", "Barabar"). Some of these are connected to ethnic images. For example, Tugay explains the more effective actions of Tatar scouts compared to the Cossacks not by the narrowness of their eyes, but by the fact that they eat horse meat and drink kumys instead of "rakia".

Even friendly relations, when tested by war, reveal in Starytskyi's realistic depiction each leader's concern for their own soldiers in battles and the Tatars' bey, murzas, and chambuls' behavior dependent on the moment's circumstances. This occurs despite Tugay's declarative assurances that Allah's children unite soul to soul in friendship. In reality, there is a direct correlation: when the Polish army's situation worsens, the "eternal barabar" (brotherhood) between the Tatars and Cossacks strengthens, but when it improves, this friendship weakens. The main reason for the conflict between the allies, as shown by the author in a historical spirit, is the Ukrainian captives (jasyr). M. Starytskyi, in a romantically hyperbolized light, portrays the extreme agitation of the Tatar and his furious threats to side with the Poles if he does not immediately receive jasyr and the enemy convoy. In response, Khmelnytskyi diplomatically promises the Crimean Tatar army rich spoils, resulting in the bey promising him the friendship of the faithful until the end of time.

The unreliability of the Crimean Eastern ally, according to the Western romantic stereotype, is largely due to his "savagery". The Tatars, according to Charnota, are "an unsubordinate people; they are willful and unyielding... And even our own are not all disciplined yet" [3, p. 523]. The Crimean horde, Khmelnytskyi angrily notes, always seeks to rake in the heat with others' hands, always striving to gain "garach" (plunder). The Tatars, as the author depicts, are not only greedy for jasyr but can also be Asian-style cruel in dealing with enemies who fall into their trap (LXVIII).

After the victory, in accordance with the customs of Eastern warriors, some of them tie up the Poles with lassos, while others loot wagons and carriages. Others strip the dying, who have fallen under the "crossing lightning of scimitars", of their silver armor and gold rings, cutting off fingers to get the jewelry. Among the trophies from the Polish camp, there were many items of Eastern origin: the finest Persian belts, Turkish brocade, and Uriah pearls. When facing a strong enemy in open field, Starytskyi emphasizes the extraordinary bravery of the best Tatar knights, like Tugay-bey and his brilliant retinue of murzas, who, despite the danger, approach close to the Polish army's positions to scout their arrangement. The daring warriors (djigits)

<sup>3</sup> Here, too, there is evidently a miscalculation: in M. Starytskyi's depiction, the day of Bayram resembles late summer or early autumn. In reality, however, the major Bayram is celebrated by Muslims at the beginning of October, and the minor one in the second half of December.

challenge the enemy to a “valiant duel”. Meanwhile, the Polish nobles try to rouse their own courage by falsely belittling the Easterners, saying, “The foolish-headed Tatars, having drunk their booze, are preparing to trouble us...” [3, p. 572]. In reality, during the celebratory feast of triumph at Khmelnytsky's, Tugay's Tatars and he himself consume only those dishes and drinks that the prophet Mohammed has not forbidden to the “faithful”. Furthermore, the last parts of the novel “At the Pier” add to the imagological gallery of Eastern characters with the Tatar serdyuks of the hetman, who, during their free time, consume “chihir” while singing a “monotonous, dreary Tatar song”, and two giant, monstrous Tatar executioners, faithful servants of Tymko.

Apart from the military and domestic aspects, the Orient is most revealed – mostly in the final novel of the trilogy – in the context of Bohdan Khmelnytsky's diplomatic activities. The Hetman, as portrayed by the novelist in accordance with historical reality, skillfully navigates the contradictions between the Porte and Poland, as well as the ambitions of the Tsar to capture Constantinople. Simultaneously, he sends letters to the Turkish and Muscovite rulers, requesting their protection. These letters, aided by his son Tymko, help gather valuable information about the moods of influential Tatars like Karabich-murza and others. In the author's conception, they contribute to strengthening the oriental vector of Cossack Ukraine's policy. According to the Hetman's persuasion, “we must not lose the Tatars and the Turks”. To ensure the “Tatar camps” do not creak too much, lavish gifts, letters with generous promises, best wishes “to His Khanly Majesty”, and refined eastern compliments are employed.

Similarly, depicted is the policy towards Constantinople, supplemented by measures to weaken the Vizier's trust in the Poles. The Hetman soberly assesses the situation: whichever side the Porte leans towards will gain the advantage. His inner reflections lead to an understanding of the mutual benefit of protectorate under the Turks: the brilliant Porte beyond the sea “will not overflow to us, but through the Cossacks, it is advantageous for it to keep the neighbors in fear...” [3]. Later, however, Khmelnytsky becomes disillusioned with the alliance with the Sultan in favor of Moscow (his illusions and disappointments in dealing with the Mohammedans were inherited by Hetman Doroshenko in the diptych “Youth of Mazepa” – “Ruins”, whom Briukhovetskyi sarcastically dubbed “the illustrious hetman of the Tatars” for this). As a politician, Bohdan understands that the Porte will agree to round out its territory with the “vilayets” of Ukraine, but as a pragmatist, he is convinced that the Sultan will not send troops to defend it and will delegate the matter to the Khan, who will ‘sell out’ at the first opportunity.

Starytskyi demonstrated a thorough knowledge of the events in Turkish history of the 17th century in his novel. For instance, the phrase from the ambassador's letter to Istanbul regarding the death of the Sultan at the hands of Janissaries and the beginning of the rule of a new vizier reflects actual events from 1648. At that time, Sultan Ibrahim, who was strangled near the helm of power, was succeeded by Muhammad Pasha Dervish (actually Sofu Mehmed Pasha). Other events in the novel depict historical events such as the siege of Zbarazh by allied forces and the death of loyal friend Tugay-bey at the beginning of the Battle of Berestechko. It justified the ominous forebodings of the hetman, who found himself in “honorable captivity” under Islam-Hirey. The end of the Cossack-Tatar alliance during Khmelnytsky's era in the novel comes with the escape of the Horde troops from the plague into their own uluses. It should be added that the trilogy incorporated motifs from the mentioned diptych, including depictions of the splendors of the Bakhchisarai palace, oriental comparisons with the natural world, and tested Turkisms (“yok bek”, “barabar”), organically supplemented by “exotic” time calculation (“the moon already changed its appearance three times since then...”).

The portrayal of the military-political alliance of the Cossack state under Hetman P. Doroshenko with the Crimean Khanate

prompted an oriental discourse in the unpublished Soviet novel diptych of M. Starytskyi's “Youth of Mazepa” (1898) and “Ruins” (1899). The author began to embody these pages of interstate history according to the principle of “from the opposite”. Albeit in a humorous context, the Zaporizhzhian elder Sich promises to give time to non invited “squint-eyed Tatar”. This line is illustrative of the sentiments expressed by Ivan Bohun (Chapter III) among the people, weary of the raids by the Horde. In the novel, Mazepa, thinking like a statesman, plays the role of a mediator in revealing the international situation. During that time, Moscow, after the Pereiaslav Council, still feared competing with Poland, the “Tatars land”, and Turkey, and thus it tore Ukraine apart with the Andrusiv Peace.

With the era of P. Doroshenko, in the novel comes an attempt to rebuild new allied “bridges” between Ukraine and the Muslim East. At the personal sphere level, this is depicted through the appearing of Tatar murzas in the hetman's capital. Doroshenko formed friendly relations with Islam-bey. The verbal portrait of the influential Turk enriched the limited Oriental gallery of positive Ottomans and Tatars in Ukrainian literature of the 19th century. Starytskyi focused on depicting the precious weaponry and rich attire of the Eastern guest – skillfully crafted caftans and robes, a helmet adorned with a large diamond. The features of Islam-bey's appearance harmonize with this description: he has a handsome olive-colored face, not narrow but large almond-shaped eyes radiating bravery combined with cunning. These are both individual psychological characteristics of the character and generic features of an Ottoman in the epic vision. The only negative trait in the realistic “Dickensian” style of the portrait is his broad teeth, giving a predatory tone to his face.

The Tatar-speaking dialogue incorporates friendly yet formal addresses in the bey's remarks. The bey's dialogues vividly revealed, among other things, the relations between the Khanate and the Porte, combined with principles of agreement and friendship rather than the strict domination of the Turkish suzerain over the Tatar vassal. There replicas provided examples of the Porte's tolerance towards the faith of non-Muslim subjects of the padishah (e.g., “The crescent of Mohammed does not clash with the tops of your Christian crosses”) [4, p. 98]. Doroshenko's programmatic language, as focused by M. Starytskyi, aimed not so much at praising the powerful overlord ally but rather at mitigating the widespread imagosemantics of hostility from the Porte towards the Slavic world, highlighting the striking differences between neighboring civilizations of the East and West. In contrast, the novelist emphasized mutually tolerant ideas of unity and joint military endeavors: “...your bravery, your swiftness, your courage – are close to us: the Cossack and the Tatar are akin through the vast steppe and free will” [4, p. 97]

Similar to B. Khmelnytskyi in the trilogy, the hetman from the duology faces a psychologically challenging test with the most crucial situation of choosing an ally. Orienting himself towards a powerful country in the Middle East, Petro Doroshenko weaves secret dreams of deflecting from enemies to establish independent orders in Ukraine. Thus, he hesitates to immediately seek support from the Khan even from Islam-bey, understanding in his heart (Chapter XVIII) that the Tatars are friends but also driven by self-interest. Yet it was with them that “Father Khmel” liberated Ukraine from Polish bondage, and the Tatars did not oppress the faith of Ukrainians, as emphasized by Metropolitan Tikhalskyi. Apparently, eastern “brothers” would demand much in return for their help, and their intervention could lead the homeland into decline. However, Ukraine cannot fend off the Commonwealth and the Muscovite Tsarhrad on its own. Furthermore, eastern pashas would not acquire estates and serfs in Ukraine, nor would they persecute Orthodox priests like the Poles.

Completely unusual in the Oriental paradigm of 19th-century Ukrainian literature is the narrative role of the eastern counselor, depicted in the novel as supporting Islam-bey's statecraft hopes and the hetman's aspirations. Namely he, once rescued by Doroshenko from captivity, asserts the genuine need to

strengthen Cossack Ukraine with the might of the Ottoman Porte and the Crimean Khanate, which Doroshenko secretly dreams of. Perhaps the rhetoric of Islam-bey, the spokesperson of individual brotherhood, adorned with the raspberry flag "with the bright shadow of the sultan", does not entirely appeal to Hetman Petro. However, the constructive idea of a strong union between the Ukrainian and Turkish peoples holds deep significance for him, grounded in his belief that no historical or political storm will break the tree of true friendship.

The staunch opponent of the hetman's pro-Turkish sentiments was the respected Zaporizhzhian colonel Sirko - a consistent critic and hater of "the charm of the Agarian", embodying the traditional Cossack view that raids against Crimean Tatars and Turks are nothing short of a holy feat in the name of Christ. His convictions, expressed during the dialogue among Cossacks in Part XX of the novel, resonate closely with the majority of them. Starytsky substantiates this with the historical memory of the Sich about the betrayal at Brest and the expulsion of Jasir from Ukraine. They justify their position with the folk proverb "Be friends with the Tatar, but keep a stone ready in your pocket" (Ukrainians adapted its variant regarding a semi-Asian ethnos: "Be friends with the Muscovite, but keep a stone in your pocket").

Despite all the differences in views and political orientations, the duology gradually brings forward Ivan Mazepa in the role of a unique arbitrator. The future hetman, who, having lost, managed estates under the Porte, takes a consistent state position in this decisive debate on saving Ukraine through an alliance with the Crimean Khan (which the Cossacks eventually accept, except for the staunch Sirko). The dialogue of struggle in Parts XXII-XXIII between the visionary political pragmatist Mazepa (who justifies the actions of saviors of their nations Judith, who cut off the head of Holofernes, and Delilah, who weakened Samson) and Sirko shows that the colonel narrowly adheres to the ideas of medieval crusaders and cannot forget the evils of the Horde. Mazepa understands this at heart, having seen villages ravaged by Tatars, but he does not accept Sirko's hardened approach, which promises greater calamity to the homeland, since Sirko rejects the possibility of friendship between the heathens and the Cossacks as long as Zaporizhzhia stands. In contrast, Sirko orients himself towards Moscow - as the supposed "paternal home" for Ukrainians (to which Mazepa reasonably demonstrates the unsuitability of Moscow's order for Ukraine).

Important in terms of Oriental imagery semantics, the scene between Mazepa and Marianna (Chapter XLII) further elaborates on the Eastern vector of Doroshenko's and Mazepa's political doctrines, highlighting both their commonalities and differences. For instance, Mazepa does not support the hetman's idea of extending Turkish protection over the Left Bank Ukraine: "Of course, the Turks are strong and distant neighbors, but under their rule there will never be peace; one only needs to remember that their law commands the eradication of all Christians" [4, p. 249].

The "omniscient" author, using Mazepa's thesis about seeking some distant protector is "building" the bridge into 1709, the events of "the Swedes". M. Starytsky endowed Ivan Stepanovich with far-reaching state plans for distancing from the East in the future ("throw away the Tatars", "push back the Turks"), which will ultimately only raise respect for Ukraine among Muslims.

The battle scenes in the duology, like in the trilogy, absorbed an Orientalist emphasis on the zeal of Allah's warriors. This is also present in the comparison - generally with a negative connotation - of the Horde soldiers to "disorderly packs of black demons, rushing with howls and roars to engulf a handful of brave men" under Sobieski. At the same time, the novelist noted as a mental trait of Crimean Tatars their dislike for besieging fortified camps or castles. Thus, Doroshenko, eager for victory, decisively calls on Kalga (actually a general term, not a specific name) to a decisive assault, addressing Nur ad-Din in Eastern etiquette. However, the Tatars postpone the battle until morning:

it is time to perform the evening prayer, gather, and burn the bodies from the field.

The plans of the hetmans and the sprouts of allied interaction between the Tatar and Cossack armies, dramatically portrayed by Starytsky, collapse together fate, the shortsightedness of some, and the personal experiences of others - though hetmans, but also Ukrainian cordocentric men [2]. This occurred in the depicted events under Berestechko in the trilogy and similarly unfolds in the duology (the Battle of Pidhaitsi). When in the novel "Mazepa's Youth" the allies were separated from the decisive triumph only by night, news reached the Tatars: Sirko had struck at Crimea. This placed Doroshenko at the mercy of Tatar yataghans, from which he was saved by Islam-Bey. Promises wrapped in the guise of Eastern fatalism from "Sultan Kalga" to finish the battle for a double bribe remained promises; the Tatars signed a perpetual peace with Poland.

The final novel "Ruins" continued and completed a series of motifs inherited from the previous work. This includes the plundering of Ukraine by "'slant-eyed dogs" of the Horde, joined by the Turks under the leadership of the Pasha. It also reveals the antagonistic tearing apart of the elite, Cossacks, and commoners among different orientations, and Ukraine - further fragmented by several hetmans fighting amongst themselves. Various characters, in different situations and influenced by external factors, repeatedly discuss which protector to adhere to. However, the chosen political courses of Doroshenko towards the Porte and Khanenko towards the Tatars remained unpopular among the Ukrainian people. Thus, disillusionment with the Eastern ally of Doroshenko and Mazepa began in the ethnoimagological literary reception during the second "intermission" of the historical union between Crimea and Ukraine.

At the end of the novel, Starytsky depicts how Bohun begins a partisan war with the Turks. He had previously expressed dissatisfaction with Ukraine's "eastern course", using the term "unbelief" as a stencil-like signifier for Easterners. The colonel emphasized that the Tatars consider Cossacks to be like dogs, and the Quran supposedly promises a reward for killing and deceiving Christians. Although the idea of a cross "under the protection" of a crescent did not appeal to Bohun and many others, Doroshenko sees no alternative. The hetman idealistically hopes for "easy payment and little obedience" from the powerful Turkish state of another faith [4, p. 396]. Starytsky justified this position with the reasoning that the Porte, located across the sea, cannot absorb or subdue Ukraine, and in general, it is not inclined to pay attention to the internal affairs of its subjects. In the mass scene in Chapter LXXV, Tukalskyi reinforced this argument: by uniting with a Turk, the Cossacks unite with Eastern patriarchs and the source of their piety, thereby supporting the holiest and all "sub-Turkish" Christians.

The characterization of literary orientalism in the novel "Ruins" would be incomplete without noting the Eastern coloration that Chyhyryn acquired. This includes in the description of the castle many guests in "white tents". Mention is made of aghas, murzas in expensive attire, and Turkish Janissaries who were the retinue of the noble leaders of the 30,000-strong Horde, brothers of the "sultan" (meaning khan) Nureddin, Mamat-Hirey, and Salamat-Hirey. In the orientalized depiction of the bazaar square, there are Eastern goods, figures of traders including Tatars and long-bearded Turks, and most notably Armenians. Another Eastern ethnic group mentioned in the novel are the Kalmyks in service to Briukhovetskyi, a detail not covered by P. Kulish.

The romantic twists of the novel, a constant theme in the artist's historical prose, are also characteristic in his oriental discourse. This includes Mazepa's persistent and somewhat hopeless search for Halyna in Crimea and Constantinople (who knows who among the "infidels" and in whose harem ended up?). On the margins of historical storytelling, Starytsky barely indicated (presumably due to politics overshadowing daily life, or perhaps a desire not to repeat himself) and then only sparingly, as in the novel "Mazepa's Youth", with elements of material Eastern

ambiance. These are already familiar low Turkish divans, carpets, weapons, and so forth.

At the heart of the novel, there is the dilemma of “mutually beneficial alliance” versus “Muslim yoke”, which particularly torments Petro Doroshenko. He hopes for the former, having already gained positive experience in his novelistic history of interaction. The Turks helped him twice against the Poles and “Cain” Hanenko with Jurash, who became a prisoner in Istanbul’s Yedikule. Also, the hired Bilhorod Horde fought faithfully alongside the Cossack regiments on the left bank. Hetman psychologically explains unpredictability of the Crimean Tatars by the arrogance of the murzas and “sultans”, which Mazepa realistically exploits for advantage in his neighbor’s house disturbances.

Historical fiction writer M. Starytsky not only introduced documents into his artistic canvas, like D. Mordovets did, but also visualized Doroshenko’s “agreement” with the Turks adopted by the Council of Korsun. Externally, it is a parchment document with a hanging seal, on which was written in Turkish and translated the “irade” of Sultan. The document revealed the foundations of the Cossacks’ coexistence with the Porte - not as slaves or tributaries, but as people free from all taxes. The Ottoman insignia “tui”, “sandzhak”, and the baton signified the alliance and the hetman’s readiness to militarily support the Porte in its wars. Mazepa, in turn, keenly inquired about how Turkey would come to the aid of its allies. The agreement guaranteed the inviolability of faith and Orthodox churches, private property, and the freedom of local people under the threat of capital punishment. In Starytsky’s reception and among the representatives of his ideas among the foreground characters (VIII), this forms the very basis on which alliance and coexistence with non-believers and the “unwavering authority” of Turkey can be built.

Around the alliance with it and the reality of implementing these provisions in life, discussions unfold on many pages of the novel (and this typological convergence, let us say, with Panteleimon Kulish’s “Black Council” or Mykola Voronyi’s poem “Yevshan-Zillia”, authors who reflect on the paths to lead Ukraine on the right road). This leaves its mark on the multifaceted genre-compositional nature of “The Ruin” – simultaneously a historical and biographical novel with projections into the present, an adventurous and romantic canvas, a novel of debate, and partly even a dystopian warning against an alliance with the East.

The final position was summed up during the discussion at Zaporizhzhia by Grandfather Knys: “...one should not deal with the unclean... one cannot trust the basurmans: they will deceive, they will not give aid, and if they come to us, it will be to our own detriment” [4, p. 680]. The same conclusion is reached by Colonel Hostriy, who in a confidential conversation with Mazepa asserts that one cannot trust Turkish assistance, and thus an alliance with Turkey “will forever be against the people...” [4, p. 706]

In the diplomatic game between the West and the West (Ukraine with Poland) and the West and the East, Constantinople’s Patriarch Methodius becomes involved. He alternates between granting and revoking the “unblessed writ” to Sinful. The hetman, falling under the precedent of Doroshenko’s policy, leans towards a plan to use the Sultan’s protection with subsequent refusal from it. Therefore, he dares to threaten the tsar’s envoy with uniting Ukraine under the Turkish “sandzhak” and subsequently launching a joint campaign with the Porte against Muscovy.

The opponent of the eastern orientation - more from tactical than principled convictions, which are not inherent to him - is portrayed by Starytsky in Samoilych’ image. This “fool” in Taras Shevchenko’s assessment actor meticulously substantiates the anti-Christian mode of the Porte (LV), weaving intrigues against Doroshenko and Sinful. The author justified Mazepa’s disappointment in the “dreadful alliance” with other state-building reasons: “one could not expect any prosperity or

freedom from a country subjected to the rule of Turkey” [4, p. 851]. At the same time, he harbored long-held hopes for the military forces of Turkey’s government, distinct from the bloody marauding horde.

The die was cast definitively when, in response to Doroshenko’s request, the Sultan raised Turkish-Tatar forces for a campaign against Poland. The novelist easily found the reason for war: the advance of “Lechistan” against the Cossack people was unacceptable ever since they came under the protection of the Porte. Depicting the reactions of Chyhyryn residents to the appearance of the first Turkish patrols, M. Starytsky emphasized their sobering negative attitude towards these “defenders”, with swarthy and savage, as per the narrator’s epithet, faces. Indeed, they began to pillage the outskirts (the vizier justifies this by the laws of war and the necessity to obtain forage, which no one simply gives up), seizing women and children, and together with the Tatars, transforming the region into a wasteland.

The ruin is implicated to Doroshenko and Khanenko, shattered by their allies. However, Starytsky, through the means of a nagging internal voice of conscience, “controls” this accusation, reminding of the realities of the recent past: didn’t Khanenko himself summon the Tatars, attempting to wrest the mace from the elected hetman? The culmination in the interpretation of the results of the alliance with the East is Bohun’s curse on Doroshenko for transforming Ukraine into a dumb graveyard-ruin, for unjustified hopes in the “drilled” troops of the Padishah, who in reality, worse than the Tatars, ruthlessly slaughter, burn, and drive into captivity.

The tragedy of Ukraine’s ruin, deepening with the twists of the novel, increasingly discredits the idea of an alliance with the Muslim East “from within”. This is also facilitated by the description of Doroshenko’s union with the Turkish Padishah Mehmed IV and the Crimean Khan Selim-Girey near a village on the Dniester (LXVII). In this depiction, Starytsky emphasized the eloquent ceremonial and auditory impression. For instance, a part of the ceremony underscored the hetman’s subordinate status: only on the second day, after visiting the luxurious tent of the Sultan with the Khan, was he allowed to “gaze upon the brilliant countenance of the Padishah” (here, the eastern perspective was skillfully rendered in a floral style) [4, p. 884]. Like a vassal before his sovereign, Doroshenko was compelled to kneel and “kiss the edge of the sacred robes”. Only after a “flattering, loyal speech” did the hetman receive a gracious response and gifts from the ruler of the East.

Such attention to “protocol” details allowed, through the traditional ceremony, to highlight the inequality of the alliance. The auditory accompaniment was formed by a cacophony of the hubbub of the crowd, the neighing of horses, the clatter of weapons, the cries and curses of a myriad of people that deafened the fortress. Well-versed in historiographical literature, Starytsky accurately depicted the arrival of the Sultan’s retinue in Kamianets-Podilskyi and the demands for capitulation expressed in an authentic Eastern manner: otherwise, “the mighty ruler... will seethe with rage and annihilate not only all infidels but even their dogs, leaving no stone unturned!” [4, p. 885]. The Turks had significant material resources for this endeavor. These included four batteries: the main battery, that of the vizier, the Khan’s, and Doroshenko’s, along with experts in underground mining operations and a formidable military force that enveloped the fortress like a “monstrous octopus” (the author found an original image from the Eastern marine bestiary).

M. Starytsky depicted the decisive two days with the skill of a battle painter-colorist (the hill, the snow-white horse of the Padishah gleaming with “splendor of its garments and the rainbow play of gemstones”, the dominance of yellow and green turbans, and the bloody glint of the sun on the crosses of churches) and the mastery of a historical novelist – “the Ukrainian Senkevych” (the explosion of the gate, the boundless



wrath of the Sultan, the satisfaction of Asian pride of the Eastern ruler with the servile capitulation of the infidels).

The emotional and spiritual “thrust” of the castle entry scene is marked by strong episodes of desecration and devastation of sanctuaries. For example, the path before the victors is lined with holy images. The Turks dismantle church bells by order of the Padishah, as they are needed for casting cannons. Doroshenko’s semi-mad state was also induced by the order to take 800 boys into captivity. The hetman rushes to strike the Sultan or the Khan, and only Mazepa’s melodramatic tirade brings him back to his senses. One of the final plot-compositional intensifications is due to the fact that when nearly half of the “allies” camp disperses across Ukraine for plunder, violence, and looting, Bohun confronts them armed and drives them out of Podillia.

The end of the war, though not from attacks by Poles or Nogais, the deaths of Ukrainian patriots Bohun, Hostryi, and Marianna, and Doroshenko’s isolation, who stooped to offering Christians as a gift to the Khan, “clear the field” for Samoilovych, who turns towards Moscow. Similar to “The Black Council”, Starytskyi’s novel shifts the tragedy of its plotline towards optimistic implications in the epilogue, set ten years after the depicted events. This somewhat softens the drama of the novel about the unreality of equal alliance between East and West in the 17th century with the atmosphere of family happiness and heroes friendship, yet it does not alleviate the painful problems of misfortune and ruin in Ukraine. Therefore, Mikhaïlo Starytskyi’s contribution to the development of the oriental direction in Ukrainian literature at the end of the 19th century is defined by the richness of the ideological content of his artistic historicism, the portrayal of the wealth and beauty of the Orient, the power of the civilization of the Brilliant Porte, the ethos of brotherhood rather than enmity among peoples, as well as a sufficiently high culture of “Eastern” writing.

**Literature:**

1. Akimova, N. (2022). The study of the genesis of Internet texts understanding in adolescence depending on the level of mental and speech development. *Psycholinguistics*, 31(1), 6-24.
2. Shytyk, L. (2020). Ways of transferring the internal speech of characters: Psycholinguistic projection. *Psycholinguistics*, 27(2), 361-384.
3. Starytskyi, M. (1964). *Works: in 8 volumes*. Kyiv: Dnipro.
4. Starytskyi, M. (1997). *Mazepa's youth. Ruin*. Kyiv: Ukrainian Center of Spiritual Culture.

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## POETRY ON MILITARY SUBJECTS IN MODERN MEDIA SPACE: LINGUISTIC-COGNITIVE AND MODAL-PRAGMATIC INTERPRETATION

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**Abstract:** The article comprehensively characterizes the war-themed poetry presented in the modern media space, emphasizing its features such as neorealism, conciseness, sensuality, aesthetic diversity, and its focus on understanding the depth of today's realities. Involvement of the linguistic-cognitive and modal-pragmatic aspect in the analysis made it possible to focus attention on the ideological-thematic and figurative-symbolic originality of the poetic work of Volyn writers, to interpret the intentions laid down by them, to outline various psychological states, feelings, and emotional experiences. It was found that the authors use metaphors, epithets, similes, elements of allusion and reminiscence, which give the texts evaluative and emotionally expressive color. Emphasis is placed on a new interpretation of the images of the native land, sky, sun, seasons, environment, the description of which involves phytonominals, zoonames, and other lexemes; markers of the Christian faith adapted to the communicative and pragmatic needs of war-themed works were revealed. The updated textual links of the lexeme *children* are traced, psychologically marked means of authentic reflection of brutal war realities tangential to this problem are determined. Against the background of negative pictures of the war, poetic lines full of optimism, a sense of invincibility, and faith in the revival of Ukraine are considered.

**Keywords:** lyrics; war; connotative aspect; image; symbol; allusion; reminiscence; intertextuality.

### 1 Introduction

The long-term Russian-Ukrainian conflict, which became particularly acute in the 21st century, became an important factor in the consolidation of the people of Ukraine, its decisive opposition at various levels, including informational and artistic ones. While the main emphasis in newspaper journalism and television is on the reporting of facts, the writers set out to convey first of all the flurry of different emotions provoked by the full-scale invasion of Russia. Anxiety from endless shelling, horror from the consequences of the abuse of the Russians against the civilian population of Ukraine, pain from the loss of relatives became the impetus for writing works of various styles and genres. The Russian-Ukrainian war affected not only the subject matter of the texts, but also the language expression of everything related to it. Trying to interpret reality, the authors try to choose words that not only convey certain information, but also implement the embedded communicative-pragmatic content and psycho-emotional intentions. All this prompted scientists to conduct a comprehensive and multifaceted study of texts created during the active phase of the Russian-Ukrainian war.

Among the priorities of Ukrainian linguists, there is the multi-vector study of the language of newspaper journalism during the period of the Russian-Ukrainian war. The specified body of factual material became the basis for the description of the normative and non-normative means of verbalization of the Russian military [6], invective vocabulary, considered in terms of evaluability, emotional-expressive coloring, and communicative-pragmatic load [9], neonominals, to the study of

which linguistic stylistic and pragmatic dimensions are applied [10], etc. Many publications have been written in the direction of journalism and are devoted to issues of manipulative influence and methods of fact-checking [3], compliance with standards and ethical norms in the oral speech of media persons [13], etc. In addition to journalism, scientists pay attention to the artistic discourse that reflects the military realities of today, contains deeply emotional images and symbols that encourage the readers to immerse themselves in the deep meaning, appeal to cognitive interpretation, update knowledge of history, literature, folklore, etc. In terms of communicative and ethical norms and expressive and evaluative language expression, such texts were considered by H. Syuta [14]. Worthy of attention is the article by O. Pukhonska "The War's Literary Reflection: From the Affective to the Rational", devoted to the analysis of various genre works on military topics in the plane of the writers' own life experience [11]. Determining the priorities of the literary text of the war, the author calls "the manifestation of emotional, mental and physical dimensions of the war, which in other sources of information are often generalized, simplified, and ideologically labeled. ... Secondly, the text of the war performs the function of historical understanding of its causes and consequences, taking into account the experience of the past. In other words, it represents the communicative memory of Ukrainian society, connected with the colonial experience of Russian imperialism (most often Soviet totalitarianism) with its most tragic manifestations – repression, linguicide, ethnocide, prohibition of national self-determination, devaluation of the individual, his dignity and freedom. Thirdly, the literary text of the war performs a therapeutic function in several dimensions: individual, generational, and national" [11, p. 799–800].

Among the works of the analyzed sample, a prominent place belongs to the lyrics, which are not only a reaction to the demands of society, but also serve as a kind of psychological protection from what was seen, contaminating the shock from the war, the feeling of threat, and the emotional state of all Ukrainians. In the scientific paradigm, such works have already partially received a different vector interpretation. In particular, L. M. Horbolis, focusing on the ethno-psychological aspect, traditions and values of the Ukrainian people, characterized the image of the hero-defender in the works of Borys Humenyuk [2]. These and a number of other scientific studies are undoubtedly relevant and scientifically valuable, but they do not cover all the problems and all the work done by the authors of the poetic word. In our opinion, it is no less important to research new poems that are characterized by topical thematic outline, originality of images, and stylistic originality. Modern works represent a "fresh" reaction to the next manifestations of brutality of the Russian military, crimes against the civilian population; they vividly and unconventionally verbalize sadness and pain. In addition, authors do not wait for the publication of their own poems in collections, but submit them on various media platforms, primarily on the Facebook network. Such parameters, as well as a touching and emotional understanding of the war, the originality of images and symbols are characteristic of the poetry of Volyn artists, members of the National Union of Writers of Ukraine.

The purpose of the article is an ideological-thematic and figurative-symbolic interpretation of the poetic work of Volyn writers, which covers the period of the active phase of the Russian-Ukrainian war, built on linguistic-cognitive and modal-pragmatic dimensions.

### 2 Materials and Methods

The material of the research was poems, which figuratively reflected the realities of military time. The works posted on the website of the Volyn organization of the National Union of Writers of Ukraine, the authors' personal pages on the Facebook network, on the website of the Volyn National University, in

particular, in the publication informing about the media project "Poems from the Basement" initiated by students of the Faculty of Philology and Journalism, were analyzed [12].

The article uses a number of methods that made it possible to achieve the goal and comprehensively solve the set tasks, in particular: descriptive, combining analysis and synthesis, used during the development of related scientific works, the study of which contributed to the development and application of a holistic concept in the article; intertextual, aimed at identifying allusion and reminiscence in war poems; cognitive analysis, which made it possible to reveal the deep meaning of images and symbols attested in the poetry of Volyn writers; comparative-typological, which allowed revealing the dynamics of figurative and symbolic interpretation; psychoanalysis, the task of which is to outline the specifics of means of expressing psycho-emotional states; pragmatic analysis used during the study of linguistic means that realize various intentions, affecting the reader's sensory sphere.

### 3 Results and Discussion

Ukrainian poetry of the period of the active phase of the Russian-Ukrainian war, which, according to O. Pukhonska, "is most fully able to accumulate the emotional spectrum of the experience" [11, p. 801], impresses with its versatility. Quite motivated, Yu. Kovaliv called modern lyrics the most mobile genre-generic formation that "instantly responds to the dynamics of life in its tragic fractures" [8]. Complementing the above considerations, let us add that lyrical works not only convey the realities interpreted by the author, but are also a means of encoding impressions, feelings, and experiences. When constructing linguistic-thought pictures, writers use symbols and figurative means that explain various psychological states, feelings, mental experiences, such as: fear, despair, hatred, etc. According to A. P. Zagnitko's valid observations, "a special status in the structuring of the text belongs to the language-figurative level and its poetic-symbolic dimension" [16, p. 415]. According to the scientist, "the most difficult is the adequate reading of the linguistic and figurative dimension of the artistic text, the main components of which are the images realized in the language fabric. A symbolic-poetic dimension is attached to it, because establishing the load of particular symbol requires the addressee (reader) to penetrate into the folk memory and trace the load of the symbol in the national-linguistic picture of the world with its actualization and interpretation load in the corresponding artistic text" [16, p. 416]. The elements of the algorithm specified by A. P. Zagnitko serve as the basis of the analysis of the poetry of Volyn writers. One of the important features of the work of modern artists is the appeal to symbolic images, in particular, the place where one was born, to one's own home, which is traditionally associated with positive emotions, nostalgia for childhood, protection, confidence, and nowadays - increasingly often with separation, destruction, losses. Significant emotional and psychological tension is conveyed by the following lines: "села пускають коріння в могили / предків. / здійснюється нервом дим із / карпатських колиб..." (O. Pashuk); "крихта до крихти / вибирати сніг / із трицін землі / щоб заліпити дірку в грудях хати / бо з неї витікає життя / вилітають рушники / сполоханими птахами / і стоїть вона посеред зими / сама-саміська / глипає виколоти очиськами / в порожнечу / прислухаючись / чи хтось іде" (O. Pashuk). The given lines evoke associations with people who have lost or left their homes. Once it was not only a shelter, but also a whole universe, but now it is empty, deserted, and lonely. O. Pashuk extremely deeply conveyed the terrible reality of war. The metaphorical images of *дірка в грудях* і *виколоти очиська* (a hole in the chest and pierced eyes) are full of special expression, they are consonant with the horrors that the enemies brought to Ukrainian land.

Cities receive human traits and feelings: "Втомлене місто берці знімає з ніг, / кров запеклася на свіжих ранах доріг (O. Pashuk); А ми лиш хотіли спати і снити вночі, / тепер наше місто птахом підбитим кричить" (O. Pashuk). In this

context, the image of a wounded bird, which conveys pain and despair, attracts attention. It is worth noting that birds are often depicted in wartime poetry. The deep meaning is contained in the lines in which the life problems of people forced to leave the house, that became a firing position of the occupiers, are presented in a panoramic and associative whole: "зазираєш у серцевину квітки / а звідти вилітають птахи довгою вервечкою / у кожного на стині гніздо (nest)" (O. Pashuk). The word *nest* acquires intratextual expansion, and its semantic capacity is provided by the representation of what is usually outside the dimensions of the material world. The nest evokes associations with the native land, sensual sphere, moral and spiritual values, family. Although the poem is written without punctuation marks, the rhetorical question that deepens the topic raised by the author is recognizable: "але куди летіти / якщо в усі сторони / небо перекопане" (O. Pashuk). The poetic image of the *перекопане небо* (*dug-up sky*) comprehensively informs about the existence of Ukrainians in the conditions of war and condensedly implements the expression. In addition to the generalized names of locations, the writers paint a painful image of specific cities, the mention of which causes indescribable pain. In particular, O. Lyasniuk, identifying herself with Bucha, writes: "ні сліз, ні слів / занімила й отерпла / я сьогодні / Буча / розстріляна з зав'язаними / назад себе руками / замотаним обличчям / зав'язаним життям".

Appealing to the image of the earth, which is traditionally associated with fertility and fecundity, makes it possible to emphasize the terrible consequences of war: "Земля у вирвах. Небо розполохане (N. Humeniuk). На полі мінному жита руді колосяться... (N. Humeniuk)".

In the analyzed texts, we come across semantically complicated forms of conveying sorrow, trouble, sadness. Such a function is performed by complex nominations of the applied variety, which play an important role in the formation of the figurative and symbolic system of the poetry of Volyn artists: "хати-вдови вагітні криком (O. Pashuk); Деся світитиме місяць на безлюдне село-обеліск... (N. Shulska)". We consider it appropriate to emphasize the dominance of the image of the widow, which is due to external factors: during the full-scale invasion of Russia, many women lost their husbands in the war. Analyzing this image against the background of traditionality and updated expression, we will use the algorithm proposed by A. P. Zagnitko. Operating with the concept of linguistic and figurative background of the work, the scientist defined the following qualifying parameters: "this is both the author's purely linguistic and figurative content of the work, and the relationship of this background with the corresponding works of the period when the artistic canvas appeared, and it co-exists with all the previous linguistic and figurative wealth" [16, p. 416]. The appeal to tradition, according to A. P. Zagnitko, "co-expression with all previous linguistic and figurative richness", can be traced in the poetic line "Вдовиця-чайка квітить у зелі" (N. Humenyuk). In one of the famous legends, it is said that a woman missed her dead husband very much and turned into a seagull.

Numerous metaphors and comparisons, formed on the basis of a subjective perception of circumstances and sometimes conceptually disproportionate to the context, which emphasizes their originality, are aimed at expressing the image of war, underlining its tragic nature: "Кожне спалене місто / пече мені, як цистит. / Горло димом гірчить, що / застряг у легенях, мов / куля. / Ночі тінями сквери / встеляють, як сітками, / з віт (N. Shulska); Тілом пройде, як струм, / безпощадна страшна / сирена (N. Shulska)".

The stringing of verbs that energize the text is characteristic of the poetry of the active phase of the Russian-Ukrainian war, for example: "Покласти в валізу втому, / тікати із рідного дому, / лишивши в горнятку каву, у шафі сукенку, як паву, / оту, що ховала «на вихід / Як прикро, яка безвихідь!» (S. Stasiuk)". The given lines summarize the state of all Ukrainians in the first hours of the full-scale invasion. The following passage needs special comment: "Я прокинусь. / Молитимусь. /

*І застигну в / чеканні, як віск, / Поки буде тривати / найдовіша у світі тиша* (N. Shulska). In addition to the dynamics modeled by verbs, the author's interpretation of the temporal sign deserves attention. With the help of a hyperbolized compound, *найдовіша у світі тиша* ("the longest silence in the world") the sense of danger, excitement, fear caused by the threat of enemy missiles is conveyed. In the poetic work of Volyn writers, the war is also presented as a clear conceptual and temporal sign - it is about the beginning of a full-scale invasion, which became a moment of unpredictable and unforeseeable changes in the life of every Ukrainian: "*Ця війна, що почалася взимку / Лишила у волоссі пасмо інею / І ополонку за пазухою / під віями кожної хати. А під віями кожної хати Бурульки сліз / Які не розтануть / не висохнуть* (N. Shulska); *Лютій. Двадцять / четверте. / Прокинулись, / наче померти... / Бо в тебе не буде «завтра»* (S. Stasiuk)". The specified temporal feature became a time limit between those sensations and feelings that were before and that arose with the first explosions: "*лінива любов переростає в лютневу лют* (Yu. Finkovska)". Sometimes, the authors resort to the creation of new nominations, which make it possible to more clearly outline the duration and tragic nature of the war: "*Війна – час ночеднів, смертєжиття*" (V. Verbych). The derivational basis of selected complex neologisms are the antonym lexemes *night* and *day* and *death* and *life*, respectively.

The conceptualization of war is connected with various stylistic figures that create a contrast and give poetry an evaluative and emotionally expressive color. The war divided the lives of Ukrainians on 'before' and 'after' the full-scale invasion: "*Сонце тремтить кісточками з вишні, / ніби закінчилося життя колишнє, / а до нового ніхто не звик ще...* (Yu. Finkovska)". Appealing to the memory of once important things that instantly lost their value, the poets model a kind of antithesis contexts: "*Сукенка? Та біс із нею! / Он місто зривали з / землею / в сусіда палає хата, / в дитини немає тата, / у когось ноги немає...* (S. Stasiuk)". In the given poetic fragment, the stylistically reduced expletive is used, which gives the poetry a culminating sound; it realizes a special functional load and reveals communicative, pragmatic, and psychological potential.

In the researched poems, the sensory sphere actively appears, the core component of which is pain: "*І власний біль ховається між слів* (Yu. Silchuk); *Біль брудно білий і у всіх різний...* (Yu. Finkovska)". We agree with O. Pukhovska's reasoning that "the poetry of war is mostly the poetry of pain. The metaphorical nature of the poetic language represents even the sharpest, most naturalistic feelings and experiences in short, deeply emotional texts. An attempt to describe a feeling is at the same time an attempt to talk about pain, to distance the author from it, to give it a physical form" [11, p. 806]. Such accents can be traced in the poems of Volyn artists, who attribute pain not only to people, but also to the environment endowed with human traits: "*Українська ніч кривавить знову ранами – / І навіть тиші боляче...* (Yu. Silchuk); *Ця весна проросла бруньками-гільзами / на тілі дерев / І травою із попелом. / Вона кривавить березовим соком / І нявчить від болю вербовими котами* (N. Shulska)". The verb *кривавить* ("bleeds") allows emphasizing not only mental, but also physical suffering. The image of pain in I. Pavlyuk's poetry is a hint of death: "*Біль – / Це коли у світі / Гільзами стали патрони. / Але ким стали люди?.. / Не ображайте, будь ласка, / Зграю вовків...* (I. Pavlyuk)". It goes without saying that cartridges become shell casings when someone fires. Delving into the poetic world of I. Pavlyuk makes it possible to project an answer to the author's rhetorical question: *Але ким стали люди?..* ("But who have people become?.."). These lines encode a hint of the cruelty of humanity, primarily Russians, who kill Ukrainians, destroy their housing and infrastructure.

Personifications built on the basis of associative behavioral stereotypes of people living in war conditions serve as a means of transmitting expression at the level of text creation. In this case, authors often use different phyto- and zoonomes: "*Плаче вишня навколишки, / світанок між гіллям / тулить* (N. Shulska); *Нявчать від болю котики вербові...* (N. Shulska)".

Descriptions of nature, seasons, in the image of which the color scheme contrasts, contain a deep emotional resonance: "*і біліє пошто між хатами, / а по ньому чорним-чорними рядами / вишито хрести, більший... менший, / і щодень приходить смерть, наче вперше* (O. Pashuk)".

In the presented poetry, the metaphorical image of winter is conveyed with the help of canvas and supplemented with the attribute of white color characteristic for this time of year as a symbol of purity and festivity. Instead, the following lines, in which the reader is presented with terrifying pictures of the consequences of the war, sharply change the positive mood to anxiety, sadness, despair, and heartache. The life-giving white color is no longer there, it has been replaced by black color, for the image of which a reduplicated form is used, which enhances the expression and sense of tragedy.

The use of modified fragments from well-known works of various writers serves as a not common, but bright and original means of text creation. For example, lines "*...половина саду ("garden") цвіте / половина ще догорає...* (G. Yastrubetska)" serve as an intertextual allusion and evoke associations with a well-known song: "*Половина саду квітне – / Половина в'яне...*" (words by M. Lukiv, music by O. Morozov). At the same time, in H. Yastrubetska's poem, a garden is not just a "specially allocated large area of land on which fruit trees, bushes, etc. are grown" // The same as a park" [1, p. 1283]. The transformation proposed by the writer generates a new meaning, prompts the reader to decode the hidden intention, and makes it possible to convey the realities of war and the negative emotions associated with them. The author focuses on the fact that the enemy terrorizes the Ukrainian land every day, leaving deep wounds in it and in the souls of people. Highly appreciating the work of H. Yastrubetska, Yu. Kovaliv rightly notes that the author's poetry "tends to present a maximum of meanings and emotions in a minimal verse space, to reveal the deep semantics of the subconscious" [8].

Enrichment of textual information about the war is facilitated by allusions and reminiscences that we come across in the poetry of I. Pavlyuk: "*Це сирени не ті, / Що колись Одиссея чекали. / Воском вуха від них не заліпиш, як стонуть вони. / Сам до щогли прив'язаний, будеш чекати металу, / Вибухової хвилі диявольської глибини* (I. Pavlyuk)". These lines serve as an allusion to ancient Greek mythology and L. Kostenko's poetry "Nansen's Love": "*Світла мрія про Вас співає мені, як сирена. / Прив'яжуся до щогли і вуха воском заллю* (L. Kostenko)". Comparing the image of sirens as mythical creatures and the siren as a sound signal, the author focuses on such iconic symbols as danger, threat, death: "*У сирен тих і нинішніх / Схожі смертельно пісні* (I. Pavlyuk)". Intertextuality can also be found in other poetic works of I. Pavlyuk, in particular, in the poem "War in the Forest Song", whose main characters are known to the reader from Lesya Ukrainka's drama extravaganza "The Forest Song", but in I. Pavlyuk's poetry they acquire new features: "*В лісах моїх мавки (magpies) по ночах кричать, як вовчиці* (I. Pavlyuk)". As in Lesya Ukrainka's drama extravaganza, the magpies live in the forest, but their emotional state is different: they scream desperately and loudly, which resembles behavioral stereotypes of she-wolves. The transformation of the magpies is completely unexpected: "*Хтось піснею стане тією іще, лісовою. / Як мавка – сестра моя – стала тепер медсестрою* (I. Pavlyuk)". A thorough echo with the "The Forest Song" is unmistakably recognizable in the image of hardships, which is depicted in the context of enemies. To highlight the negative features of the Russian invaders, I. Pavlyuk used the substandard lexeme *орси* and the subordinate attribute-epithet *огидні* ("disgusting"), which realizes a pragmatic meaning, evoking in the reader anger, disgust, and hatred of enemies: "*Мов сльози з-під серця, з гущавин являються злидні, / Торгують патронами й душами орки огидні* (I. Pavlyuk)". The author uses precedent nominations, including the proper name *Лукаш* (Lukash). In accordance with the current Ukrainian realities, I. Pavlyuk changes the location of this main character, who is not in the forest, but in a trench, and also gives him the ability to

skillfully shoot. The image of *Того, що рве греблі* (the *One Who Tears Dams*) does not need clarification, as it is known to the reader from Lesya Ukrainka's extravaganza drama "The Forest Song": "*Лукаш ув окопі чекає, стріляє уміло. / Травою й деревами стали його побратими: / І той, що рве греблі, і той, хто борюся зі злими* (I. Pavlyuk)". The analysis of poetry from the position of decoding makes it possible to focus attention on depicting nature. Deep cognitive content is represented in a line "*Весніє природа. Між хмарами дроно-ворони* I. Pavlyuk)". Against the background of spring, which evokes associations with the awakening of all living things, the author presents a new image of a *дрона-ворони* ("drone-ravens"), connected with modern realities. The analyzed neonominal, formed from two thematically different words, does not need an explanation and is designed for a pragmatic effect. Quite vividly, with the involvement of metaphorical images and comparisons, emotionally expressive pictures are presented: "*Сопілково плаче душа забинтована тілом* (I. Pavlyuk)". Expressed by an adverb, the comparative epithet *сопілково* evokes feelings of sadness and longing.

In the poetry of the period of the active phase of war, we often come across ambivalent pictures: on the one hand, we see destruction, and on the other – revival, restorative processes in nature: "*...сходить насіння над попелищем* (Yu. Finkovska)". Volyn writers often refer to the image of spring, which traditionally symbolizes cyclicity, warmth, and an optimistic mood, and, entering new contexts, participates in modeling danger, tragedy, trouble, threat, and death: "*Навіть весна передчасно посвіла / Пригортаючи нерозквітлі проліски / І дмухаючи на обпалені лелечі крила* (N. Shulska); *Як дістатись весни, коли скрізь блохості. / Замість пролісків землю роздерли хрести* (O. Pashuk)". The image of spring contrasts with the desperate truth of existence in the poetry of I. Pavlyuk: "*В мою весну просочилась війна, / Немов ковбой з повадками бандита* (I. Pavlyuk)". The combination of words from different lexical-semantic groups not only creates unexpected pictures of the realities of war, but also serves as a vivid linguistic means of conveying expression and emotionality. Worthy of attention is the unique weaving of the sun into the fabric of the poems, which is considered the source of warmth, joy, light, and life on earth. Today, in this image, we can trace the formation of new meaningful nuances that are provided by subordinate epithets: "*...кіптяве сонце сходить при землі* (N. Humenyuk); *А ми сидимо біля дому, наче старі, / Сонце голодне пасемо на чорнім дворі* (O. Pashuk)". In texts describing modern reality, the sun lacks brightness, light, life-giving power and energy. Depicting it against the background of dark colors, the authors convey all the tragedy of reality, anxiety, fear, spiritual devastation of people due to the full-scale invasion of Russia. Raising the issue of the individual author's meanings of artistic symbols, O. Taran notes that they "have a higher degree of expressiveness compared to symbols used in the traditional sense; in the semantics of artistic symbols, there is a polarization of the emotional and evaluative potential of lexemes-prototypes of symbols" [15, p. 5].

In poetic texts, writers repeatedly resort to the image of a woman-mother, a woman-wife: "*Ця війна перейде в літо, а потім в осінь / Загляне до кожної кімнати / Попросить у жінки чоловіка / А в матері сина / Не обіцяючи, що поверне*" (N. Shulska). It is difficult to describe the pain and despair that engulfs mothers upon the news of the death of their warrior sons: "*діти не повинні йти дочасно / туди де їх ніхто не стрічає / де мати ще не зготувала вечерю / не запалила свічку в серцевині мороку*" (O. Pashuk). The reader is presented with pictures whose language expression is accompanied by the negator *не* ("no"), which not only denies the content of what is said, but contrasts with the usual peaceful life and at the same time enhances expressiveness. A mother always waits for her children, tries to protect them from troubles, because they are the greatest value and joy in life. The usual things for a mother - taking care of children, giving them the warmth of her own soul, boundless love - lose their meaning when sons die. In this case, the mother's life turns into complete darkness, for which O. Pashuk used the dark color of *морок* (*gloom*).

The life of women in wartime is full of anxiety for men who are far from home and defending the land from the enemy: "*тримати чи відпустити / на місяць рік назавжди / а потім самотнім вітром / шукати їхні сліди / шукати їх запах усюди / по закутках у речах... / проходять крізь тебе люди / у кожного власний страх* (O. Pashuk)". Pain, despair, and suffering are embodied in the lines that convey the condition of many modern women who have become widows: "*у небо знялось гайвороння / кидають об землю крик... / знову когось хоронять / над містом летять хустки*" (O. Pashuk)". As it is known, in the national culture, crow is associated with negative ideas, including fear, trouble, and death. A means of strengthening negative connotations is the comparison of birds that have risen to the sky with headscarf. In this context, the image of the headscarf complements the "unlucky" symbolism, because this headdress serves as a female attribute during burials. In addition, the feeling of anxiety is incited by the metaphorical expression *кидати об землю крик* ("to throw a scream on the ground"), which, in combination with other artistic means, plays the role of a bright pragmatic means of influencing the reader's sensory sphere.

Artists describe certain events and internal states of people using known language codes and signs of spiritual culture that do not require additional explanations: "*Народе мій! Твої страждання / Мабуть, не знесли б і святі... / Встаєш з колін Ти щосвітання, / Як Бог, воскреслий на хресті... / Знаходиш іскорку надії / У місіві кривавім міст, / Бо тихо молилась Марія / Під голосний ракетний свист...* (S. Stasiuk); *Дай, Боже, Перемогу Україні! / Храни нас Той, що після мук воскрес!* (N. Humenyuk)". The reader has enough sacred knowledge to understand the text built on associative connections and to decode expressions of religious themes and anthroponyms. From time immemorial, one of the main spiritual and value vectors of the national consciousness of Ukrainians has been prayer to God. Semantic markers of spirituality and Christian faith function in the investigated poetic texts. Constructions with appeals to God reveal a different modal plan, but persuasive statements with imperative predicates in the second person singular dominate, which in the scientific literature are considered to be the central means of explicating the volitional content [4, p. 101]: "*Птахам до Тебе ближче, Боже праведний, / Почуй! Спиши смертей жахливий лік, / Змети мару, оскалену ще з правіку, / Хитни цей світ на свій сповітлий бік. / Все, що створено, не буде хай спотворено. / Все, що любов, – любов'ю осіни. / Дай крилам шлях, на весни заговорений. / І лиш орді – ні райдуг, ні весни* (N. Humenyuk)". We will casually comment on the secondary nominations of enemies, which are denoted by an attributively complicated name *мара, оскалена ще з правіку*, as well as the noun *орда* (*horde*), that causes associations with aggression, genocide, violence. In addition, we find the connotation of a non-expletive curse addressed to invaders: "*І лиш орді – ні райдуг, ні весни*".

The erasure between the earthly and the sacred, the exaltation of Ukrainian warriors, the endowment of their resilience in the fight against the aggressor, courage, are conveyed in the following lines: "*І знов земні стають для нас іконами*" (Y. Silchuk). Authors often appeal to higher powers to protect those who defend Ukrainian lands from the Russian invasion: "*Яголи Божі, прикрийте крильми / Кожного, хто вирушає до бою / Проти московської тьми!!!* (N. Horyk)". The use of verbatim or modified lines from the Lord's Prayer in poetic speech emphasizes the expressiveness of the poem. Such verbal codes are recognizable, they exist in the linguistic consciousness of people as fragments of their sacred knowledge: "*О, Боже, спаси й сохрани!* (S. Stasiuk)".

Elements of the sacred are presented in other conceptual lines, in particular in the celebration of Easter: "*Великдень Україна зустрічає / У берцях і терновому віноці. / Мов птаха біла, кулею підтята, / Поранена рашистом на льоту, / Несе любов святу свою на свято, / Як писанку небесно-золоту* (N. Humenyuk)". Depicting the image of Ukraine, N. Humenyuk focuses on a number of details, among which there are usual for

this holiday *любов* and *писанка* (love and Easter egg), which contrast with the moods inspired by the war. The author reveals this topic in the key of the Christian imagery of the crown of thorns as a symbol of suffering and those torments endured by Jesus Christ for the sake of the salvation of mankind, along with this she mentions berets – military shoes. We cannot ignore the image of a bird, depicting which the Volyn writer uses the epithet-color name *біла* (white) and the common attributive unit *кулею підтята*, which points to the realities of today. The vector opposition of negative and positive sound images, respectively presented as a warning about air danger and as the sound of a church bell, is reflected in the lines: “*І знову рев сирени та благання дзвона* (V. Verbych)”.

The war affected the psycho-emotional state not only of adults, but also of children who have to live in the realities of war. The times of joy, satisfaction, happiness, coziness, and carelessness are over, the period of fear of endless missile and bomb attacks on cities has come. All this was reflected in a number of poems, where we trace the renewed textual connections of the lexeme *діти* (children). In particular, the war became a prerequisite for changing children's locations: instead of playgrounds, children are in shelters: “*Із лялькою в руках дівчатко безборонне / Завмерло біля входу в укриття* (V. Verbych)”. N. Shulska, using linguistic means of negation, describes what is in sharp contrast with the usual behavioral stereotypes characteristic of the children's world of a peaceful country: “*Не сняться дітям сни вже кольорові / В підвалній сирі-сірій глибині. / Вони не плачуть. Сплять без колискових* (N. Shulska)”. A special psycho-emotional stress is created by the antithesis implemented by the epithets *кольоровий* and *сірий* (colored and gray). Focusing attention on the means of expressing negative content, scientists emphasize the dominance of functional units, among which the negative part *не* is singled out as dominant one in the morphological palette of linguistic units [7, p. 129]. In the above poetic lines of N. Shulska, we trace the repetition of the particle *не* before predicates, which serves as a means of modeling general negative constructions, strengthens the content of the dynamic feature represented by verbs, realizes the communicative effect of unusualness and performs an emotional and expressive role. Multifunctionality is also revealed by the preposition *без* (without), which, according to linguists, expresses “the negative content in a condensed manner, that is evidenced by transformed constructions with specialized negative components” [7, p. 130]. Although the sentence *Сплять без колискових* (“Sleep without lullabies”) (N. Shulska) is affirmative according to the modal plan, it does not create a contrast with previous negative constructions and together with them forms a single semantic background of the text [7, p. 129–130].

Sometimes, Volyn writers resort to the traditional form of poetry construction – to lullabies, which convey the usual for this genre love, care, tenderness, calm, but with the layering of psycho-emotional feelings of pain and despair, when the addressees are children who died from Russian missiles. For example, in the poetry of O. Kharytonyuk, the image of war contrasts with traditional images of animals: “*Вже не стріляють гради. / Вже не лякають кулі. / Бачиш, сплять зайченята* (O. Kharytonyuk); *Більш не шкребється миша / В темнім возкім підвалі* (O. Kharytonyuk)”. Prolonged anxiety forces them to spend a lot of time in cold shelters, which leave the younger generation with fear, negative impressions and emotions, so the mouse, which is a familiar character in texts addressed to children, acquires a stylistic change. The use of addresses structured not only by nouns in particular secondary nominations, but also by emotionally colored epithets, does not violate the canons of lullaby: “*Спи, мій маленький, лолі...* (O. Kharytonyuk); *Спи, золотенька лялю...* (O. Kharytonyuk); *Спи, дорогий синочку* (O. Kharytonyuk)”. Getting into the context *Буде тобі довіку, Янголе мій, шість рочків* (O. Kharytonyuk), the nomination of *Янголе* (Angel) takes on new functional shades: it indicates that the child has died, and also performs an important communicative and pragmatic role and serves as a convincing psychological means of authentically reflecting cruel military realities.

In modeling the concept of war, the image of the Ukrainian warrior occupies a prominent place. Addressing the defenders, N. Horyk uses the evaluatively marked appeal *наші ріднесьні* (“our dear ones”), which intimates the text and emotionally contrasts with the lines full of pain and cruel reality that not all military personnel will remain alive in the fight against the enemy: “*Знаю... Не кожен вернеться до / хати... / Але усе ж – на прокляття москві – / Наші ріднесьні, перемагайте / І повертайтеся живі!* (N. Horyk)”. Against the background of rapidly changing pictures related to war realities, N. Humenyuk depicts the image of a wounded defender: “*Ранок. Шпиталь. Жовтий сонях в сльозах. / В пам'яті «гради» і міни – синхрон. / Ноги... лишилися.. під териконом... / Як він біжить, як злітає у снах! / Як він кохану несе на руках...* (N. Humenyuk)”. These lines are full of pain and despair.

Elements of coding can be traced in the description of the Russian invaders. Relying on the stereotypical notions of Ukrainians about the zoosystem, S. Stasiuk uses the zoomorphic metaphor *зрзя* (a pack), the contextually related verb *гарчить* (growls), and the adjective-epithet *озвіріла* (went wild), with the help of which he gives an exhaustive negative description of the enemies: “*Гарчить озвіріла зрзя / отих, що братами звали* (S. Stasiuk)”. In the above statement, we also trace the elements of antithesis, built on the juxtaposition of accompanying temporal signs: once the brothers have now become a ferocious pack. According to I. Pavlyuk, they “*люблять убитих, / Жити не вмючи без війни*” “love the killed, / Not being able to live without war” (I. Pavlyuk).

The war united people, changed their value orientations, their own safety and the safety of their family became paramount: “*допоки ми разом, так просто нас не уб'ють...* (Yu. Finkovska); *усе незначне, якщо це збереглося життя* (Yu. Finkovska)”. Despite the reflection of pain, sadness, anxiety, war poetry also contains optimistic motives associated with an unshakable belief in victory: “*Треба триматись, що би не сталося, / молода лют, вікова зухвалість, / нам ще усім святкувати старість, / це ось майбутнє, воно почалося* (Yu. Finkovska); *Час залікує шанці, / Згине орда зміна. / Будуть в віках нетлінні / Янгол у вишиванці / І вишивта Україна* (N. Humenyuk)”. The image of vyshyvanka as a national code of Ukrainians serves as a symbol of their moral values, their own freedom and the freedom of the country where they were born and live.

We will casually focus attention on the modal-syntactic organization of poems, the mini-plots of which are often presented with the help of short statements punctuated by three dots, which not only make it possible to convey the state and feelings of the author, but also have a significant pragmatic impact on the reader, encouraging him to delve into the meaning of the text, come up with and experience the described events himself: “*Душі отерли... / Ні їсти ні спати... / Опіки в серці – пожежі й дими / Де ти, наш Батьку, Муже і Брате?... / Де ти, наш сину, в цю мить?* (N. Horyk)”. In a small passage, constructions of different modal plans are used. Poetry begins with short, but informative statements of the affirmative modality. After them, there are two interrogative structures, complicated by references to the designation of close people. The questions do not simply perform a clarifying function, they express a feeling of anxiety for those who defend the country. We come across a rhetorical appellative as a separate expression in the poetry of O. Sadova: “*Народе мій! Твої страждання / Мабуть, не знесли б і святі...* (O. Садова)”. The following construction contains the modal word *мабуть* (probably), which, on the one hand, gives what is said a subjectively defined meaning, in particular, implements “the semantics of uncertainty, assumption, probability from the speaker's point of view” [5, p. 131] and correlates “with verbal predicates close in meaning like *здаватися, припускати, сумніватися* (to seem, to assume, to doubt)” [5, p. 131], and on the other hand, it declares the communicative intention of the speaker to convey his emotional state from the continuous events of terrible everyday life. Against this background, expressively rich motivational and modal expressions stand out, explicating



unshakable confidence in the undeniable stability and strength of Ukraine and motivating not to lose faith in its victory: “*Борися, земле! Україно, будь!* (N. Humenyuk); *Будь, Україно, вільною завжди!* (N. Humenyuk)”.

#### 4 Conclusion

Thus, modern poetry is neo-realistic, laconic, aimed at understanding the depth of total grief, the evil that Russia brought. War lyrics, reflecting the existential (real, not abstract!) competition of life and death, the traumatized consciousness of Ukrainians, their national tragedy, impresses with sensuality, heightened emotional experience and aesthetic diversity. The imaginary world of Volyn writers is multifaceted; in it, familiar phenomena acquire new meanings, and the echoes of war realities contain the sky, the sun, and the environment, the expression of which is realized by phytonominations, zoonames, and other lexemes. In addition to the depiction of the terrible everyday life of the war, the dominance of awful pictures of danger and destruction, the poetry is full of optimism, a sense of invincibility, and faith in the revival of Ukraine mutilated by the Russians.

The topic discussed in the article is promising, in the future studies we consider it a priority to involve updated research options in the analysis of war fiction, in particular, a deep psychoanalytical reading.

#### Literature:

1. Busel, V. T. (Ed.). (2005). *A large explanatory dictionary of the modern Ukrainian language*. Irpin: Perun.
2. Horbolic, L. M. (2022). The hero-defender in the work of Boris Gumenyuk: ethnopsychological aspect. *Ukrainica Kh. Současná ukrajinistika problems of jazyka, literatury a kultury. Sborník příspěvků*, p. 439–444.
3. Konstankevych, I., Kostusiak, N., Shulska, N., Stanislav, O., Yelova, T., Kauza, I. (2022). Media manipulation as a tool of information warfare: Typology signs, language markers, fact checking methods. *AD ALTA: Journal of Interdisciplinary Research*, 12(2), XXIX, 224–230. [http://www.magnanimitas.cz/ADALTA/120229/papers/A\\_39.pdf](http://www.magnanimitas.cz/ADALTA/120229/papers/A_39.pdf).
4. Kostusiak, N. (2013). Category syntactic modality and its grammeme's implementation. *Linguistic Studies*, 26, 99–103. <https://evnuir.vnu.edu.ua/bitstream/123456789/851/1/Kostusyak.pdf>.
5. Kostusiak, N. (2014). Grammatical structure of the lexical-grammatical modality category. *Typology and Functions of Language Units*, 1, 127–139. <https://evnuir.vnu.edu.ua/handle/123456789/3311>.
6. Kostusiak, N., Navalna M., & Mezhov, O. (2023). Verbal identifiers of the enemy: Cultural and deaestheticized models. *Slavia Orientalis*, LXXII(4), 893–905. <https://journals.pan.pl/dlibra/publication/148592/edition/130439/content>.
7. Kostusiak, N., Navalna, M., Skliarenko, O., Masytska, T., Sydorenko, T., Prymachok, O., Holoiukh, L. (2023). Expression of Negation in Media Texts During the Russian-Ukrainian War. *AD ALTA: Journal of Interdisciplinary Research*, 13(1), XXXIV, 123–131. [http://www.magnanimitas.cz/ADALTA/130134/papers/A\\_18.pdf](http://www.magnanimitas.cz/ADALTA/130134/papers/A_18.pdf).
8. Kovaliv, Yu. (2022, July 5). A few touches to modern lyrics under fire. *Bukvoid*. <http://bukvoid.com.ua/events/culture/2022/07/05/112454.html>.
9. Navalna, M., Kostusiak, N., Sazonova, Ya., Prosiyanik, O., Skliarenko, O., Chernobrov, Yu., Ovsienko, A., Prymachok, O., Shynkar, T. (2024). Invective vocabulary in the language of the Ukrainian mass media during the Russia-Ukraine War: Stylistic layers and pragmatics of meaning. *AD ALTA: Journal of Interdisciplinary Research*, 14(1), XL, 47–53. [https://www.magnanimitas.cz/ADALTA/140140/papers/A\\_07.pdf](https://www.magnanimitas.cz/ADALTA/140140/papers/A_07.pdf).
10. Navalna, M., Shynkaruk, V., Kostusiak, N., Prosiyanik, O., Chernobrov, Yu., Adamchuk, N. (2023). Lexico-semantic innovations in the texts of the Ukrainian mass media on military topics. *AD ALTA: Journal of Interdisciplinary Research*, 13(1), XXXIV, 132–139. [http://www.magnanimitas.cz/ADALTA/130134/papers/A\\_19.pdf](http://www.magnanimitas.cz/ADALTA/130134/papers/A_19.pdf).
11. Pukhonska, O. (2023). The war's literary reflection: From the affective to the rational. *Slavia Orientalis*, LXXII (4), 799–814. <https://journals.pan.pl/Content/130433/2023-04-SOR-08.pdf?handler=pdf>.
12. Shulska, N. (2023). Poems from the basement. <https://vnu.edu.ua/uk/news/virshi-z-pidvalu-projekt-poetychnykh-lystivok-vid-mahistrantiv-zhurnalistyky>.
13. Shulska, N., Kostusiak, N., Bukina, N., Kyrlyiuk, O., Zinchuk, R., Afanasieva, O., Levchenko, T., Sadvynychyi, V., Baranova, S., Medvid, O. (2024). Peculiarities of “Unified News” Television Broadcasting: (Non)Adherence to Professional Standards, Language and Ethical Norms. *AD ALTA: Journal of Interdisciplinary Research*, 14(1), XL, 82–88. [https://www.magnanimitas.cz/ADALTA/140140/papers/A\\_14.pdf](https://www.magnanimitas.cz/ADALTA/140140/papers/A_14.pdf).
14. Syuta, G. (2022). Texts of war: situationally marked anormativity and new aspects of the norm. Materials of the II International Slavic Conference dedicated to the memory of Saints Cyril and Methodius (Kharkiv, May 18, 2022). Kharkiv – Shumen: KhNPU; HIFT, pp. 179–187.
15. Taran, O. S. (2002). Semantics of Nature Symbols in Poems of Alexander Oles: Linguopoetic and Ethnocultural Aspects. [PhD dissertation brief]. Kharkiv.
16. Zahnitko, A. P. (2014). *Theory of grammar and text*. Donetsk: “Knowledge” publishing house (Donetsk branch).

#### Primary Paper Section: A

#### Secondary Paper Section: AL

## PHYSICAL CULTURE AND SPORTS IN THE LIFE OF YOUTH OF THE 21ST CENTURY: VALUE CHANGES

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**Abstract:** The article represents an attempt to comprehend value landscape of physical culture and sports in the life of today youth. The study is based on sociological paradigm, in particular with the use of stratification and institutional approaches with elements of comparative analysis and sociocultural integratism. The findings outline a scale of decline of physical and sports activities in youth in the USA, EU, and Australia, with the analysis of core reasons of this phenomenon. At the same time, special attention is paid to the phenomenon of hip-hop as a new kind of sports, having 'grassroots' and democratic nature, with strong identity and culture background, as a vivid manifestation of youth sports practices transformations in the 21<sup>st</sup> century.

**Keywords:** sports; physical culture; sociology of sports; values; youth; hip-hop; identity.

### 1 Introduction

In the 21st century, in the process of urbanization, technical and technological progress, the physical activity of adults, youth, and children has decreased significantly. In the era of digitalization of society and the development of automated industry, a person does not need as much physical effort to perform ordinary everyday tasks as was required even in the middle of the last century: groceries and food can be ordered without leaving home; a well-developed public transport infrastructure and taxis will take a person to any place he needs without much effort; even a walk to the nearest cinema can be easily replaced by watching a movie on the Internet. The lack of simple physical activity often causes a deterioration in vitality and a narrowing of physiological abilities, as well as the appearance of various diseases. Negative trends in decreased physical activity usually begin at a young age. However, today the value landscape of physical culture and sports among young people is very heterogeneous.

As studies show, the basis for developing interest in sports among young people is the availability of sports infrastructure facilities and the social environment in which a person grows up [2]. At the same time, the environment negative for physical activity is not necessarily dysfunctional families, disadvantaged communities or areas: in African-American "ghettos", basketball is very popular, as well as hip-hop dance practices, exercising of which requires very intense training and good physical shape, while among the so-called "golden youth" the use of "soft" drugs - marijuana and amphetamines - is often widespread, that, accordingly, excludes the possibility of active physical activities and sports.

Currently, most countries in the world are concerned about the problem of a sedentary lifestyle. According to European statistics, almost 40% of adolescents and young people aged 15 to 29 years do not pay attention to physical education and sports [7]. Some of the reasons for this problem, according to experts, are the widespread prevalence of information and computer technologies among children and youth, significant time spent at the computer, as well as the replacement of outdoor and sports games with computer ones, in particular, rapid development of cybersport [2]. At the same time, a sedentary lifestyle is associated with a number of negative consequences both for the

health of the individual (obesity, problems with the cardiovascular system, disorders of the musculoskeletal system, in some cases aggression, stress, etc.) and for society as a whole (decrease in labor productivity, increased financial burden on the healthcare system, etc.).

Meanwhile, in our fast-paced, digital age, when screens dominate our attention and virtual connections frequently replace face-to-face contacts, the importance of athletics in today's kids cannot be stressed. Beyond the excitement of competition and the delight of physical activity, sports provide other advantages that impact the character, health, and general development of young people. Sports serve an important part in preparing young people for the problems of today, from establishing camaraderie to encouraging discipline and boosting mental well-being.

In considering the critical points about the potential importance of sports in today's youth, experts outline the following [25]:

1. Physical fitness and health. The foundation's emphasis on athletics not only encourages young people to be physically active, but it also improves their entire well-being. It combats the sedentary nature of modern living and encourages a healthy future.
2. Time management and discipline. Sports demand commitment and discipline, which the foundation instills in its participants. These abilities will surely spill over into other facets of their lives, assisting with their personal and professional development.
3. Teamwork and leadership: The foundation's emphasis on teamwork educates young people for successful cooperation, which is essential in today's linked world. Leadership skills are developed, resulting in individuals who can lead by example and positively contribute to their communities.
4. Stress reduction and mental well-being. Participating in sports, as encouraged by the foundation, is a wonderful approach to reduce stress and boost mental health. It provides kids with coping techniques and resilience, which are critical in addressing the difficulties of the current world.
5. Social interactions and cultural exchanges. Through sports, the charity encourages social contact and cultural exchange among young people. This exposure helps to break down boundaries, foster understanding, and broaden their ideas.
6. Life skills and character development. The experiences given by the foundation help students establish character and acquire vital life skills. These abilities will benefit young people in their personal and professional lives, assisting them in becoming responsible and successful persons.

The United Nations' 2030 Agenda, adopted in 2015, recalls that sport is an important enabler of sustainable development and values sport's growing contribution to the realization of development and peace through the promotion of tolerance and respect, as well as the contributions it makes to the empowerment of women and young people, individuals and communities, as well as health, education, and social inclusion objectives [26].

Sport not only promotes healthy mental health and cognitive development, but it also fosters tolerance, respect, tenacity, resilience, equity, and solidarity. Sport engagement promotes personal growth, which is essential for reaching young potential. The UN also acknowledges sport as a tool for conflict resolution and supporting long-term peace and development goals. Sport, which disregards geographical borders, ethnic divides, and socioeconomic classes, has the potential to connect communities despite cultural or political disagreements. It also contributes significantly to social integration and economic empowerment.

But, evidently, this potential cannot be implemented without integral inclusion of sports into youth' system of values. Thus, the study of value changes dynamics in physical culture and sports within the life of youth in the 21<sup>st</sup> century represents highly important scientific and practical task.

## 2 Materials and Methods

The theoretical and methodological basis of the study included works of sociologists who focus on an interdisciplinary approach to this problem. The study used stratification and institutional approaches with elements of comparative analysis and sociocultural integratism. In addition, system and axiological analyses, theoretical modeling and scientific generalizations were used as additional research procedures.

## 3 Results and Discussion

Increasing the level of health of young people depends on many factors, but the decisive one among them is the position of the person himself and his attitude towards his own health. The main factors that improve a person as an individual include the expansion of his worldview, while self-realization in society is possible only in the process of spiritual and physical self-improvement. The problem of the health of the country's population is determined both by the diversity of the demographic composition of modern society, and by the nature, orientation, approaches, ways and means of maintaining health, the difficulties of forming an active position among the population towards its preservation.

Human health is a problem that has gone far beyond the boundaries of medical science, it is a harmonious unity of biological and social qualities determined by congenital and acquired influences, and its preservation and maintenance is one of the fundamental values of human life. According to scientists, maintaining health largely depends on the attitude of the person himself to this precious gift of nature, his behavior and lifestyle [12]. Therefore, it is extremely important to adequately understand the place of physical culture in the value system of modern youth and wisely use its potential in various spheres of public life as the most effective means of social self-organization, the formation of a healthy lifestyle, as a way of aesthetic, moral, cultural, harmonious self-expression of the individual. The approach to physical education and sports activities from the point of view of its axiological, value foundations is of no small importance for understanding the role of this phenomenon in the life of a modern person as a carrier of social, class, group, individual and personal information.

Student sports, with its rich value potential, has a direct impact on the general culture of society – particularly, through the socialization of the student's personality. It is about physical and spiritual improvement of a young man's personality, his full and active life, health, a healthy lifestyle, the spirit of sports competition, respect and empathy, those human values that are the basis of physical education and student sports. Student sports plays a very important role in preparing a viable and socially active young generation [17].

This is especially true in the USA. According to 2018 data, the percentage of children aged 6 to 12 that participate in a team sport on a regular basis fell from 41.5% in 2011 to 37% in 2017. Since 2008, participation has decreased in a variety of sports, including baseball, basketball, flag football, and soccer, with baseball down by roughly 20%.

The reduction in juvenile sports engagement seems perfectly designed to heighten concerns about the status of American childhood. One would speculate that the decline is due to youngsters turning to computer games, television, and other electronic diversions that do not require an open field or a court. Perhaps athletics is simply another legacy institution that can no longer compete for attention, like churches, community centers, and bowling organizations. But delve further into the statistics, and a more nuanced, two-track picture emerges. Youth sports involvement is increasing among affluent households. Among

the poorest households, it is declining. In 2017, just 34% of children from households earning less than \$25,000 participated in at least one team sport, compared to 69 percent from houses earning more than \$100,000. In 2011, these figures were around 42% and 66%, respectively [22]. In summary, the American youth sports system, which favors the gifted and frequently wealthy individual over the group, has smashed the principles of participation and universal growth. Youth sports has evolved into a pay-to-play machine [1]. Thus, the existence of sports in the value systems of American children is directly related to socioeconomic standing. Figure 1 shows the current and predicted patterns of fall in team youth sports participation rates in the United States.

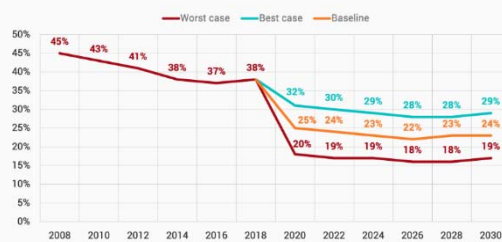


Figure 1. Team youth sports participation rates (with projection) [10]

But there is also another interesting phenomenon of physical activity and sports as a value – it is about the phenomenon of hip-hop.

According to Nielsen Media, hip-hop was the most popular genre in the music business in 2017, accounting for 24.5% of total music consumption [3]. This was the first time hip-hop completed the year at number one, surpassing the regular category leader, rock music. On January 8, 2018, 12-time Grammy-winning rapper and composer Kendrick Lamar performed the halftime show of the College Football Playoff National Championship game, as if to symbolize this achievement. And, while this performance firmly established hip-hop artists and their music as vital to current sport culture, the connections between hip-hop and sport are far from new. Numerous examples abound, from the groundbreaking Run-DMC/Adidas partnership of the mid-1980s, to the prominence of Nike and Michael Jordan within hip-hop communities in the 1990s, to more recently with the Jordan Brand signing endorsement deals with hip-hop artists Drake, Travis Scott, and DJ Khaled; Serena Williams appearing in Beyonce's visual album, *Lemonade*; Jay-Z founding Roc Nation Sports athlete management company in partnership with high-profile Hollywood talent.

Aside from cultural objects, hip-hop has entered the lexicon of sports. Today, both hip hop and sports are strong creative forces. And, while the sports-hip hop complex has grown to be a cultural giant capable of evicting conventional players from primetime advertising slots and disturbing their games, none of the two powers can be properly comprehended in isolation. Academic communities' failure to acknowledge these long-standing connections has cost them the opportunity to ask compelling questions about race, gender, sex, social class, age, identity, and social/economic values, as well as the ways in which influential cultural forms have complex externalities and associations, many of which are conditioned by and feed into the technological infrastructure. The September 2020 edition of *Sociology of Sport* was the first time a peer-reviewed publication merged two parts of societal culture for intellectual engagement in the same academic space: hip hop and sports. While this is an important time, more study, theory, and practical knowledge must be developed on this subject.

Sociological research in the field of sports is observed mainly within the framework of structural functionalism. The structural-functional paradigm was developed in the second half of the 20th century. Talcott Parsons considered it for sociology in

general, but it turned out to be applicable to the sociology of sport too. The focus was on the social functions of sport. Among the representatives of the structural-functional paradigm in the sociology of sport, one can single out Charles Leslie Stevenson, who is mainly known as a metaethical philosopher, but also worked in the sociology of sport. In particular, he emphasized the integrative function of sport, which he understood as involvement in a team included in the general social structure. He characterized this process as second-level integration. Stevenson considered sport to be an “institutionalized mechanism” for satisfying an integrative human need [15].

Within this paradigm, sport can be viewed as a social system which produces special relationships that are reproduced by specific social actions. When applying the methodology of this paradigm, “new functions and dysfunctions of modern sports, the relationship between the social system and the personality system, the status-role complex of actors in sports activity” are studied [20]. Functions and dysfunctions again refer to the dialectical nature of sport. Another issue is the interaction between the individual and society. And since all types of these interactions are practiced in sports, this subject of study is natural.

Sport has always been a realm where firms rely on the same marketing tactics: a brand on a player's chest, advertising boards inside a stadium, or television commercials during halftime. However, when Generation Z becomes a target for advertisers, it is time to improve these tried-and-true strategies. The fight for Generation Z's attention is tremendous. Gaming and hip-hop, in particular, play an equal (if not greater) importance in their leisure time, with Spotify, TikTok, Twitch, and Netflix becoming far more natural parts of the everyday lives of this generation aged 14 to 29 than sports. According to analysts, the most sought-after target group of young people may be found at the crossroads of athletics, gaming, and hip-hop [13].

In the last 10 years, hip hop dancing has emerged as a cultural vehicle for young people and adolescents in Guayaquil to express the social environment in which they live. Its role includes identity creation, identification, articulation, and organizational processes in children and adolescents. To understand them, it is necessary to examine the formal relationships of Hip Hop dance practice and how they affect racial concerns, migration, and classicism. Hip-hop has evolved throughout time to reflect and embody environmental and social concerns in a globalized society. Upon personal contemplation, the significance of the music on my identity became clear, prompting the research to focus on Hip-Hop as a vehicle of social change [8]. The notion that Hip-Hop has and continues to aid social transformation for minority groups is based on its investigation as a social critique. Hip-Hop's globalization in many surroundings and civilizations has resulted in sub-genres that have embraced the genre's social activism, enabling for changes in cultural attitudes and values. Hip-hop as a sport has therefore become a genuine value for the 21st century youth, permitting democracy in sports, which, as previously said, is rapidly being lost by traditional sports.

The connection between hip-hop and sports has continued to grow. This is an unparalleled phenomena in which sports value and place change in the life of the younger generation. For a large portion of the populace, hip hop signifies nothing more than free speech. As a result, Hip Hop extends well beyond its roots in urban society. It reflects the innate right to free speech, which is essential for a society's healthy growth. The freestyle movements are a kind of opposition to traditional society, representing young people's ambitions. Improvisation is a significant feature of hip hop dancing; while discussing dance, all of the crew members provide different ideas for choreography, and they select the finest dance steps based on originality and style. The beat is vital in choreography since it defines the rhythm during performance.

It should be noted that the relationship between hip-hop and the NBA has evolved throughout five decades, influencing not only

the league's image but also the larger cultural environment. Allen Iverson's breakthrough influence created a ripple effect that can still be observed in modern partnerships; this journey demonstrates a profound connection that resonates with players, fans, and teams. Hip-hop's enduring impact on the NBA has created a unique community that continues to grow, forever altering the sports and music landscape in an incomprehensible yet remarkable way, and this can even be viewed as a possibility to re-democratize elite sports by abandoning the rooted principle “pay-and-play”.

In Europe, both genders engage in more physical activity during childhood and less as they enter adolescence. Physical activity patterns are erratic, and many European children and adolescents seldom engage in persistent periods of moderate or strenuous physical exercise [11]. In Germany, just 43% of young people from households receiving social aid are physically active, but 63% of young people from secure socioeconomic circumstances exercise frequently. 14% of individuals polled said they didn't have enough money in their home to participate in sports. Poverty and social living conditions influence daily activity and involvement in sports groups [11]. Despite convincing data, there is a disturbing trend of decreased physical activity among European kids. The WHO recommends at least 60 minutes of moderate-to-vigorous physical exercise every day, although a considerable minority of people do not fulfill these standards. Gender differences remain, with females being less active than boys and activity levels decreasing as adolescents' progress from childhood to adolescence. Recent studies, such as the Fitback project (whose mandate is to advocate for and provide tools for examining population health trends, the effects of national fitness policies and interventions on child health at the local, regional, national, and European levels; FitBack enables the prediction of future trends in population health by relating health risk to physical fitness status), provide valuable insights into the fitness landscape of European youth. However, the results show troubling tendencies, with only a small proportion of young individuals fulfilling recommended exercise levels. Finland stands out, whilst Portugal, Italy, France, and Romania fail to meet minimum standards. The decrease in physical education offerings in schools exacerbates the problem, which is compounded by less possibilities for active living outside of educational settings. Inadequate infrastructure, insufficient adult supervision, and inactive options all add to the dilemma. The COVID-19 pandemic exacerbated this drop, especially during school closures, which disproportionately impacted younger children and adolescents [6].

In 2018, Massiera et al. [16] did a study that looked at the representations made by sports practitioners as well as the ideologies that govern sports institutions in three European nations. Sports organizations appear to provide identity references for practitioners through the ideals they communicate and the types of sociability they foster. This worldwide research examines sports practices and representations using a questionnaire distributed to practitioners in Cardiff, Great Britain, Nice, France, and Pitesti, Romania. The findings show some differences. Sports practices in the United Kingdom continue to be imbued with educational principles, which are consistent with the ideas that inspired the sporting movement. In France, sporting practices appear to be more established in an orthodoxy fostered by communal monitoring. Sport in Romania is still associated with a therapeutic vocation and social mobility due to the country's communist heritage. When these paradigms are compared to the value landscape of generation Z, it is clear that they do not correlate, resulting in difficulties with young attraction to physical culture and sports.

At the same time, studies showed that while previously the main goal of physical education and sports was to maintain and improve health, for modern students, even among those who are obviously active in physical education and sports, maintaining physical fitness comes first [21]. Through physical activity, student youth demonstrate their belonging to the sports lifestyle and its values. The social environment places the subject's appearance within a certain framework. By changing the social

environment, the bodily embodiment of the subject also changes. By choosing a sports lifestyle, a person demonstrates a hierarchy of values that he shares, and in which the value of health is not paramount and does not act as the goal of sports and physical education among students.

Sport is an important part of Australian culture and identity. International athletic successes are the most important sign of national pride in Australia, as evidenced by the huge proportion of Australians aged 5-17 years (64-85%) who participate in some type of organized sport [23]. Organized youth sports are adult-controlled and led programs in which children and young people often attend training and competitive matches under the official leadership and supervision of an adult leader, usually the coach. While current figures show that Australia leads the way in youth sports participation when compared to other developed and developing countries, with reported participation rates ranging from 20 to 59%, it is concerning that roughly one-third of young Australians do not participate in any form of organized sport or physical activity. However, evaluations of Australian children's total physical activity levels clearly show that sport is insufficient as a solitary outlet for physical activity, with fewer than 20% of Australians aged 5-17 years achieving the prescribed Australian physical activity recommendations [23].

It should be noted that against the backdrop of the process of "erosion" of moral norms in people's minds, the culture of a healthy lifestyle among youth society has significantly decreased. And, as it is known, during adolescence the problem of choosing life values and ideals is especially important. One should remember that physical culture and sports are essential as the most effective means of developing reliable value orientations, models of moral behavior, and lifestyle. After all, the unformed system of moral guidelines of young people makes them susceptible to a variety of influences and, above all, negative ones. If to analyze the integral socio-economic trends that emerged in the 1990s and are expressed in a sharp increase in technological progress (Industry 4.0), an improvement in the quality of human capital and at the same time increased stratification in society, as well as a shift in value guidelines, one can trace their impact on youth sports participation. This is evident. In particular, in the graph in Fig. 2, showing sharp decline dynamics of students' participation in team sports in Ireland within 10 years period – from 1997 to 2007.

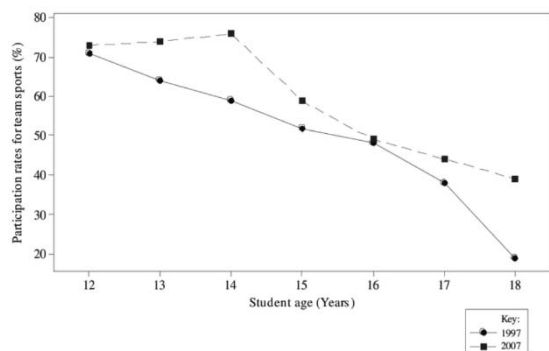


Figure 2. Participation trends in team sports by age in Ireland, 1997-2007 [4]

Sport is widely acknowledged as a vehicle for education, capacity building, and community participation, and in recent decades, sport-based development projects aimed at youth have grown in popularity. Sport has several advantages for both people and communities. Sport may serve as a platform for community members to come together, bridging ethnic, racial, religious, and other differences, and it can be an effective component of reconciliation and social integration initiatives. Sport has the potential to help vulnerable adolescents since it is built on norms, habits, and regulations that are acceptable in the wider society [19]. Participation in sports fosters a sense of responsibility that may be transferred to other aspects of life.

kids who are no longer in formal school, young people who are at risk of joining gangs, and kids who are disconnected from other kinds of youth engagement can frequently find a way to participate through sports. Sport provides young people with the chance to build social capital by developing relationships and networks.

Many young people's life revolve around sports. According to Cruickshank and Mainsbridge [5], it promotes involvement, breaks down cultural boundaries, builds community identification, makes friends, develops networks, and reduces social isolation.

Sport, in general, may contribute significantly to the common good by encouraging prosocial conduct. For example, a 2021 evaluation of 13 foreign research looked into the impact of sports programs on crime prevention and re-offending. Participants in these sessions had much lower levels of aggression and antisocial conduct. Their self-esteem and mental health improved dramatically. The consequence was a drop in criminal activity [14].

Basketball's founder, James Naismith, thought the sport taught players morals and moral qualities. He created basketball not just as an indoor game for football players to enjoy during the winter, but also as an environment in which young people could learn collaboration, cooperation, fair play, sportsmanship, and self-sacrifice. He thought that team sports instilled the abilities required for a successful community.

The conventional perspective of sport involvement is that it improves children's and young people's social and moral development while also promoting cultural values. Whitehead et al. [24] claim that the scientific evidence is more delicate and nuanced. The author investigates the notion of values as key organizing elements of human behavior that establish our priorities, direct our decisions, and transfer across contexts, as well as the value priorities and conflicts that are so valuable in understanding sporting conduct. Whitehead et al. argue that teachers and professionals who work with children in sports are centrally important agents for value transmission and change, and thus need to develop a deeper understanding of how sport can be used to encourage pro-social values. They also make recommendations for developing a curriculum for teaching values through sport in various social settings.

The socio-philosophical analysis of sport, as an established category in the system of value orientations, is also due to the need to respond to the practical problems of the modern lifestyle of young people. Modern youth are under the influence of social differentiation, changes in the structure of social relations, and negative contacts with new social intermediaries. The most important characteristic of 21<sup>st</sup> century youth is the increased stratification by socio-economic indicators. However, despite the fact that there are differentiating factors in the youth environment, many researchers still continue to consider youth as an integral group, including when studying the value of physical education and sports in the value system of youth, which is by no means the right approach. The attitude of young people to sport as a social value, their sports practices are decisively dependent on social status, conscious identity, communication and cultural attitudes. Thus, the dynamics of the value of physical culture and sports in the lives of young people of the 21st century should be considered in an interdisciplinary context, through the lens of theoretical sociology, sociology of sports, demography, and political science.

#### Literature:

1. Battaglia, A., Kerr, G., & Tamminen, K. (2024). The dropout from youth sport crisis: Not as simple as it appears. *Kinesiology Review*. <https://doi.org/10.1123/kr.2023-0024>
2. Brown, S. (2020). *Youth sport and social capital (Sport in the Global Society – Contemporary Perspectives)*. Routledge.
3. Caulfield, K. (2018, January 3). U.S. music consumption up 12.5% in 2017, R&B/Hip Hop is year's most popular genre.

*Billboard*. <https://www.billboard.com/articles/columns/chart-beat/8085975/us-music-consumption-up-2017-rb-hip-hop-most-popular-genre>

4. Connor, S. (2010). *The sporting, leisure and lifestyle patterns of Irish adolescents*. The Liffey Press.
5. Cruickshank, V., & Mainsbridge, C. (2022, February 23). How sport can help young people to become better citizens. *The Conversation*. <https://theconversation.com/how-sport-can-help-young-people-to-become-better-citizens-173733>
6. D'Anna, C., Forte, P., & Pugliese, E. (2024). Trends in physical activity and motor development in young people - decline or improvement? A Review. *Children*, 11(3), 298.
7. Farooq, M.A., Parkinson, K.N., Adamson, A.J., Pearce, M., Reilly, J., Hughes, A., Janssen, X., Basterfield, L., Reilly, J. (2018). Timing of the decline in physical activity in childhood and adolescence: Gateshead Millennium Cohort Study. *British Journal of Sports Medicine*, 52, 1002-1006.
8. Farrior, A. (2023). *The global impact of Hip-Hop music and its culture*. GRIN Verlag.
9. Harrison, C., & Coakley, J. (2020). Hip-Hop and sport - an introduction: Reflections on culture, language, and identity. *Sociology of Sport Journal* 37(3), 1-8.
10. Harwood, C.G., & Thrower, S.N. (2020). Motivational climate in youth sport groups. In M.W. Bruner, M.A. Eys, & L.J. Martin (Eds.), *The power of groups in youth sport* (pp. 145-163). Academic Press.
11. Hofmann, A. (2020). *Sport in Europe*. Routledge.
12. Jamieson, K., & Smith, M. (2016). *Fundamentals of sociology of sport and physical activity*. Human Kinetics.
13. Jenkins, T., Banks, J., & Kimbrough, W. (2023). *The hip-hop mindset: Success strategies for educators and other professionals (Multicultural Education Series)*. Teachers College Press.
14. Jugl, I., Bender, D., & Losel, F. (2023). Do sports programs prevent crime and reduce reoffending? A systematic review and meta-analysis on the effectiveness of sports programs. *Journal of Quantitative Criminology*, 39, 333-384.
15. Lang, B. (2016). *The sociology of sports*. Cognella Academic Publishing.
16. Massiera, B., Imed, B., & Thierry, L. (2018). Comparison of sporting values in Europe: Effects of social institutionalization in three European territories. *Journal of Human Values*, 24(3), 208-222.
17. Oja, L., & Piksööt, J. (2022). Physical activity and sports participation among adolescents: Associations with sports-related knowledge and attitudes. *International Journal of Environmental Research and Public Health*, 9(10), 6235.
18. Pandya, N. (2021). Disparities in youth sports and barriers to participation. *Current Reviews in Musculoskeletal Medicine*, 14(6), 441-446.
19. Purnomo, E., Mam'un, A., Kusmaedi, N., Hendrayana, Y., Jermaina, N., Amirudin, A., Fitryona, N., Sari, D. (2024). Integration of social values through sport. *Retos*, 52, 144-153.
20. Sage, G., Eitzen, D., Beal, B., Atencio, M. (2022). *Sociology of sport*. Oxford University Press.
21. Tandon, P., Kroshus, E., Olsen, K., Garrett, K. (2021). Socioeconomic inequities in youth participation in physical activity and sports. *International Journal of Environmental Research and Public Health*, 18(13), 6946.
22. Thompson, D. (2018, November 6). American meritocracy is killing youth sports. *The Atlantic*. <https://www.theatlantic.com/ideas/archive/2018/11/income-inequality-explains-decline-youth-sports/574975/>
23. Vella, S., Schranz, N., Davern, M., Hardy, L., Hills, A., Morgan, P., Plotnikoff, R., Tomkinson, G. (2016). The contribution of organised sports to physical activity in Australia: Results and directions from the Active Healthy Kids Australia 2014 Report Card on physical activity for children and young people. *Journal of Science and Medicine in Sport*, 19(5), 407-412.
24. Whitehead, J., Telfer, H., & Lambert, J. (2013). *Values in youth sport and physical education*. Routledge.
25. Woods, R., & Butler, B. (2020). *Social issues in sport*. Human Kinetics.
26. Yelamos, G., Carty, C., & Clardy, A. (2019). Sport: A driver of sustainable development, promoter of human rights,

and vehicle for health and well-being for all. *Sport Business and Management*, 9(4), 315-327.

**Primary Paper Section: A**

**Secondary Paper Section: AO**



## THE IMPACT OF THE WAR ON THE COUNTRY'S FOOD SECURITY IN MODERN CONDITIONS OF SOCIO-ECONOMIC DEVELOPMENT

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**Abstract:** The article makes an attempt to systematize theoretical provisions, experience, good practices, and cases. In the field of the provision of food security in territorial communities during armed conflicts. Global approaches to food security are analyzed, and the correlations between food insecurity and the intensity of war conflicts is traced. The article considers, in particular, cases of Ukraine and African countries. It is shown that good governance on local level is crucial in tackling the root causes of food insecurity.

**Keywords:** local self-government; territorial community; regional administration; food security.

### 1 Introduction

Every significant conflict in human history has tested and validated the thesis that poverty and hunger are inextricably linked to conflict. Shemyakina [38] correctly points out that at least three Sustainable Development Goals (SDGs) of the United Nations (UN) - namely, SDG2 (Zero Hunger), SDG3 (Good Health and Well-Being), and SDG16 (Peace, Justice, and Strong Institutions) - intersect the subject of conflict and food insecurity. Armed conflict and food shortages have a detrimental effect on people's health and well-being, both alone and together.

Food security is defined as "having, at all times, both physical and economic access to sufficient food to meet dietary needs for a productive and healthy life" [41]. Numerous studies have shown that conflict has a detrimental influence on food security. Food availability, food access, and food usage are the three pillars of food security [39]. By including the idea of stability, which combines availability and access, these pillars were expanded to four [12]. To put these ideas succinctly, they are as follows: Food availability guarantees an adequate supply; access denotes the ease with which people may receive the food they require; utilization denotes the amount of nutrients people consume; and stability denotes the question of whether food is always accessible to people [12].

One of the main causes of food insecurity is armed conflict. Approximately 60% of the world's undernourished population and over 80% of the 155 million stunted children reside in nations afflicted by violence [34]. The majority of Somali populations affected by severe food insecurity reside in regions that are either under siege or controlled by al Shabaab, a militant Islamist organization. In 2022, an estimated 43,000 individuals perished due to famine [1]. Droughts, floods, storms, and other natural catastrophes are examples of climatic events that have been happening more frequently and spreading farther, which can worsen the effects of armed conflict on food security. Certain climatic phenomena, such soil erosion, gradual temperature increases, and reduced water supply, have compounding consequences. Catastrophic climate disasters can be, however, man-made – such as blowing up the Kakhovka dam in 2023 during war in Ukraine.

The study by Pettersson et al. [36] from 2021 examined the patterns of armed conflict worldwide between 1946 and 2020 using UCDP/PRIO data, with a particular emphasis on intrastate, internationalized intrastate, extrastate, and interstate conflicts.

The number of internationalized intrastate conflicts - a conflict type in which one or both parties got military backing from an outside state - rose significantly between 2006 and 2020. The number of internationalized intrastate conflicts than quadrupled, from 9 to 25 cases, between 2012 and 2020 [36].

Mass hunger follows many of the deadliest modern wars. Starvation is a weapon in some situations [34] – the example of it is seen in the current Russia-Ukraine war, when in the occupied territories Russian invaders create artificial humanitarian catastrophe.

The United Nations Security Council (UNSC) unanimously adopted a resolution on May 24, 2018, denouncing the use of famine and food shortages as military tactics. The threat to the lives of tens of millions of people was acknowledged, marking the first time the Council has ever addressed the matter. The resolution, which is aimed at nations that are now involved in civil or international conflicts, asks all sides to preserve food supplies, farms, marketplaces, and other means of distribution. It declares that starving civilians as a tactic of warfare may be illegal and requires that parties to the conflict provide humanitarian relief workers unrestricted access to communities in extreme need. In reality, nevertheless, participants to war disputes do not abide by this agreement.

The FAO is quite worried about the state of food security in Ukraine right now. Port closures, the halting of oilseed crushing operations, the implementation of export license limitations, and the prohibition of certain crops and food goods have all resulted from the war. People were left stranded and faced acute shortages of food, water, and energy supplies while important cities were surrounded and heavily bombarded. People are likely to continue to experience acute levels of hunger and malnutrition as long as there is instability and disruptions to local and national food systems [13]. It is obvious that there is a significant and growing problem with food security as a result of the war. Due to physical access restrictions, damage to houses, valuable assets, agricultural land, roads, and other civilian infrastructure, and other factors, it has already severely affected livelihoods throughout the agricultural growing season.

At the same time, in the landscapes of war conflicts, the primary role in restoring and maintenance of food security belongs to regional administrations and territorial communities. Research in this field, with support of available cases, represents crucially important task today, under the conditions of increasing tensions and war conflicts of various nature in different parts of the world.

### 2 Materials and Methods

The methodological basis of the study was general scientific methods, providing for a comprehensive approach to solving the research problem. The study was carried out using such research methods as methods of system and comparative analysis, analogies, generalization of accumulated experience (good practices), case analysis (case studies).

### 3 Results and Discussion

Armed conflicts can have a compounding effect on food consumption and health (morbidity and mortality patterns) through simultaneous or delayed effects. These effects can include the four facets of food security (availability, access, utilization, and stability), individual care practices, health services, and a healthy living environment [9]. In particular, armed conflicts threaten food security in a number of ways: they cause direct damage to crops, livestock, agricultural infrastructure, and assets; they also cause disruptions to local food markets and the food supply chain; they cause displacement; they instill fear and uncertainty about how they will meet their needs in the future; they injure human capital;

and they aid in the spread of disease [8; 33; 40]. The household's food security may be indirectly threatened by disruptions to food systems and markets, which could raise food prices or reduce household purchasing power, or by a reduction in access to cooking fuel and water [3]. Additionally, increased transaction costs may result from the difficulty of reaching exchange markets in the event of infrastructure destruction, such as roads, train lines, and other structures [5; 11; 14; 17; 18].

These detrimental impacts extend to how food is prepared, fed, and distributed throughout the home. According to research, shocks or stressors, such as armed conflicts, typically cause physical and financial disruptions to the food supply chain. This can result in food shortages, food losses, or price volatility in both rural and urban areas, with both immediate and long-term consequences for acute and chronic hunger and malnutrition [6].

Many studies have been conducted to assess the effects of war on agriculture, including the labor supply, land, infrastructure, outputs, inputs, and land availability as a result of direct exposure to conflict. The data points to three key conclusions. First of all, they demonstrate that the disruption and destruction of farm output, including livestock, crop products, and agricultural land abandonment, causes a considerable drop in productivity in conflict-affected regions [43]. Furthermore, easily transportable agricultural produce can be taken away to feed armed group members and supporters. By making less food available to the local population, this might lead to an increase in food insecurity. Studies by George et al. [16] in the context of armed warfare in Nigeria provide evidence for this. It is demonstrated that heightened violence diminishes agricultural yield, particularly for certain key crops, and the amount of land harvested. They discover that in addition to increasing cattle thefts and losses, conflict also lowers farmers' cattle holdings by decreasing purchased livestock. On the other side, agricultural input damage and loss, including disturbance of land tenure arrangements, can have a significant effect on food supply. These inputs include seeds, fertilizer, insecticides, herbicides, and other chemicals. According to George et al. [16], there is an infrastructure effect brought about by harm done to agricultural equipment both on and off the farm, such as tractors, irrigation systems, wells, fences, and storage facilities. They contend that this influence makes it more difficult for farmers to recover during and after a crisis.

The second conclusion drawn from the literature is that, in certain cases, when conflict sides are financed by agricultural income, military wars may actually increase agricultural output. Jaafar and Woertz [19] provide an illustration of this, demonstrating how the Islamic State in Syria and Iraq (ISIS) coerced landowners to continue farming because it was a significant source of revenue. Research conducted in Sierra Leone by Gbanie et al. [15] suggests that violence might increase agricultural productivity among internally displaced people (IDPs). The authors demonstrate how internally displaced people (IDPs) could uproot agricultural operations from their original places and increase them in their new ones. Lastly, because violent conflicts restrict the incentives for technological advancements, agricultural output becomes more expensive and archaic and has less access to markets.

The coping mechanisms that households utilize to safeguard their food security, livelihoods, and productivity during times of conflict have received enough attention in the economic literature. For example, several writers demonstrate how family and individual tactics are flexible and likely to change both before and throughout a lengthy dispute [21–30]. A variety of tactics are typically used, such as adjusting crop production portfolios, reallocating labor, destroying or hiding livestock (and other visible assets), altering land use patterns, migrating, collaborating economically with local ruling groups, and engaging in other activities that reduce the likelihood of victimization and uncertainty. These tactics have a variety of detrimental effects on the quantity and quality of consumption, calorie intake, food expenditure, and food production [2].

Collier [7] discovered back in 1999 that during civil conflicts, the GDP per capita decreases at a rate of 2.2 percent annually. Compared to other economic sectors, the agricultural industry experiences a comparatively higher degree of physical devastation. The majority of conflicts and fighting occur in rural regions, where rebel and insurgent organizations may readily locate safe havens.

Based on the example of Russia's invasion of Ukraine, Nguyen et al. [35] suggested a schematic depiction of interrelations between interstate war, food security, and the circle of violence and hunger (see Figure 1).

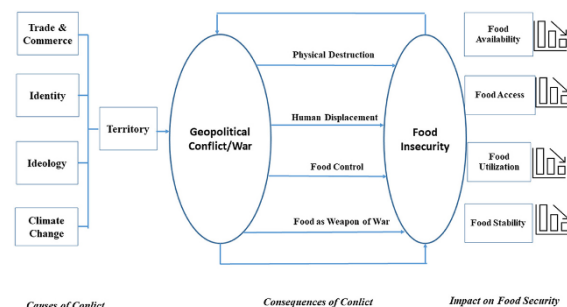


Figure 1. Interrelations between interstate war, food security, and the circle of violence and hunger [35]

It would seem that a major focus of the humanitarian, development, and peace nexus should be food security. Simultaneously, a deeper understanding of local strategies for responding to food crises and conflict is required.

It is correctly stated by Kemmerling et al. [20] that a number of food crises in recent decades have shown the shortcomings of the international community in managing food (in)security in war situations. Humanitarian relief missions have the issue of reaching individuals in need of food supplies while also avoiding escalating the war, while national governments or belligerents are sometimes unable or unwilling to respond appropriately to food emergencies. As a result, many impacted communities now have to deal with food insecurity on their own.

Humanitarian aid, development intervention, and peacebuilding must all be integrated into food assistance programs. Improving the food consumption of impacted individuals and communities is the main goal of short-term food aid during food emergencies and violent conflicts. Relief efforts in civil conflict situations, however, frequently encounter difficulties in promptly and appropriately reaching those most in need, ensuring the safety and security of assistance personnel, and obtaining the essential data of impacted communities [40]. However, experts caution that food aid might negatively impact smallholders' lives, the growth of local capabilities, and local food production and markets [20]. Preventing the detrimental effects of food aid in conflict contexts requires a precise and locally relevant knowledge of the conflict and its context. However, these interventions typically have a longer-lasting effect than the provision of food (or cash/vouchers) right away, and they already involve development assistance or transitional measures like social cohesion, the restoration of damaged infrastructure, support for sustainable livelihood strategies, and the establishment of safety nets specifically for displaced people, host communities, and returnees [10]. Therefore, long-term food aid can be extremely important for strengthening local capacity, increasing agricultural output, and finally solidifying peace. For instance, helping internally displaced households in northeastern Nigeria cultivate their own food has reduced reliance on food assistance and enhanced a feeling of community [10].

It is appropriate to discuss the definition of food system resilience in this context, which was put forth by Bene et al. [4]: the capacity of various individual and institutional actors within the food system to preserve, safeguard, or effectively recover the system's primary functions in the face of disruptions. Policy

development and territorial community initiatives to ensure food security during conflict should center on this food resilience.

Bene et al.'s study [4] made use of empirical data from Burkina Faso's northeast, where a conflict is now raging. Their study set out to record and examine the effects of that dispute on the local food system's operation, with a particular focus on the merchants' resilience. The data reveals that, in contrast to what is frequently seen with farmers, traders' resilience did not appear to be greatly influenced by their amount of assets. Rather, it seems more crucial to have moved to Sebba lately in order to maintain the degree of flexibility required to react to the fast worsening circumstances. The analysis also shows that the operators who performed better than the rest of the group, or "positive deviants", were resilient primarily because they were able to lessen the effects of shocks more effectively. However, this resilience did not protect them from experiencing sharp declines in their trading business. In the end, the system's overall resilience could not be sustained by the positive deviants alone. It results in a disastrous decline in the amount of food exchanged (up to 50% for some items), which brings about the system's failure and a ten-fold rise in the local population's food insecurity. The rapid changes observed in the Acute Food Insecurity Phase IPC 5-stage system between end 2017 and mid-2022 demonstrate how the food security of the local population degraded concurrently with the deterioration of the security situation in the country's north and northeast. The evolution of the expected number of food insecure people in the province of Yagha between 2018 and 2022 reveals that the situation has been fast becoming worse and follows the regional trend (see Figure 2).

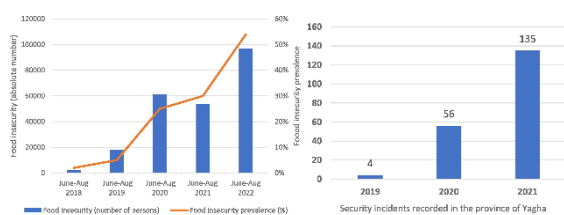


Figure 2. Left: prevalence of food insecurity in the Yagha province; Right: occurrence of security incidents in the Yagha province [4]

Bene et al.'s [4] compilation of the percentage of food traders who were actively engaged in the sale of particular food products revealed a sharp decline in the transit or sale of those goods due to armed attacks. According to the statistics, every single respondent who had engaged in cereal dealing stated that their activities had decreased. Cooking oils, sugar, and beans were the next most impacted food goods; over 50% of the merchants in those categories reported a significant decrease in their business. Meat, milk, potatoes, and fish were the least impacted goods. However, at least 25% of the dealers still reported significant interruptions even for such goods. The percentage of traders reporting serious interruption was greater than 30% for all other goods.

In Ukraine, as Kryvokhizha et al. [31] rightly claim that conditions have already been created to ensure food security, despite military actions and challenges. The initiative "Urban gardening for food security" is able to solve a number of problems presented by the results of the analysis. This initiative aims to create conditions for growing vegetables and other agricultural crops in urban environments, even in wartime conditions. It has the following key components:

- Local production. Urban gardening contributes to the increase of local production of vegetables and other agricultural products. This reduces dependence on long-distance supplies and helps provide the population with fresh, local food.
- Reduction of greenhouse gas emissions. Local production of vegetables in cities shortens supply chains and reduces greenhouse gas emissions, which helps preserve the

environment and reduce the negative impact on climate change.

- Economical development. The development of urban horticulture contributes to the creation of new jobs, cooperation between farmers and processing enterprises, and also contributes to the development of the field of processing and sale of local food products. This contributes to economic growth in the conditions of war
- Community support. Urban gardening encourages communities to cooperate and work together to grow food. This contributes to the cohesion and maintenance of the mental health of the population in conditions of war.

In addition, Kryvokhizha et al. [31] emphasize that it is also important to take into account the potential of Ukrainian farms for the development of organic farming. Crop and livestock wastes can be used as sources of local bioenergy in local projects or as fertilizers.

At the same time, Muriuki et al. [33] offer more robust and direct evidence in favor of the hypothesis that violent conflict impacts individual families in addition to the overall or regional food security. This reaffirmed how important it is for decision-makers to focus their initiatives and responses on households. The study's findings also indicate that families react to conflict in different ways, so it is important to focus treatments with a strategy that takes into account the variety of ways that conflict might have an impact. Thus, these findings are pertinent to ongoing discussions on the most effective mitigating tactics for establishing regional stability that adopt a more local approach as opposed to a national or subnational one.

Indeed, not much is known about the best ways to create policies that can assist households in escaping coupled conflict-hunger traps. Improved micro-level data would presumably greatly accelerate the urgently needed study in this area, and this is one of the primary duties of regional governments and local self-government. Verme and Gigliarano [42] in particular to take into account cutting-edge targeting techniques. When resources are limited, Verme and Gigliarano suggest using Receiver Operating Characteristic (ROC) curves and associated indices to improve targeting. They provide comparatively straightforward graphs that policymakers may use to target based on welfare criteria.

In Ukraine, the Cabinet of Ministers approved the Food Security Strategy until 2027 at a meeting in July this year. The proposed measures include the creation of state reserves, demining of lands, and possible regulation of food prices. The government lists the main challenges to Ukraine's food security: disrupted supply chains, limited opportunities for sea exports (the ports of Nikolaev and Kherson are not yet operating, the port of Mariupol is under occupation), mined territories, and the difficulty of meeting basic needs in frontline regions. Other problems include the destroyed irrigation system in the South on an area of 500 thousand hectares as a result of the terrorist attack at the Kakhovka Hydroelectric Power Station, the destruction of production facilities, and a decrease in production at existing ones. The document defines three strategic goals. The first goal is to fill the market with agricultural products. This will be done by supporting producers, in particular organic producers, in order to gradually replace the import of these products, and by restoring food industry enterprises. The second goal is to ensure the availability of food for everyone, reducing the share of food in the structure of Ukrainians' expenses. To this end, it is proposed to introduce mechanisms for the implementation of effective regulation of agricultural and food markets. In particular, this concerns possible state regulation of prices. The third goal of the strategy is the most comprehensive - ensuring the safety component of food security. The key components of the goal are the creation and filling of state reserves for a list of products determined by the Cabinet of Ministers, the creation of a food security monitoring system, and priority demining of agricultural lands. The government also believes that the Ukrainian agro-industrial complex can become the most attractive investment portfolio in the short term, which is estimated at \$ 57 billion. Among the priority areas, there are

irrigation, elevators, biogas, finished products (vegetables, fruits, dairy and meat products), seeds and agricultural machinery, and deep processing products. Despite the proclaimed ambitious plans, the strategy as a whole does not contain specific vector mechanisms for its implementation. The effectiveness of state regulation of prices is also questionable, since price regulation distorts competition and allows less efficient enterprises with high costs to stay in business.

Focusing attention on the power and potential of territorial communities and local self-government in the field of restoring and maintaining food security seems much more optimal strategy. Local governments' support to community-led initiatives to improve food access and safety can greatly reduce food insecurity, and contribute to greater resilience to the impacts of war conflicts.

#### Literature:

1. Africa Center for Strategic Studies (2023). Unresolved conflicts continue to drive Africa's food crisis. <https://AfricaCenter.org/spotlight/unresolved-conflicts-continue-to-drive-africa-as-food-crisis/>
2. Arias, M. A., Ibáñez, A. M., & Zambrano, A. (2017). Agricultural production amid conflict: Separating the effects of conflict into shocks and uncertainty. *World Development*, 19, 165-184.
3. Nahum, Z., Finkelshtain, I., Ihle, R. et al. (2020). Effects of violent political conflict on the supply, demand and fragmentation of fresh food markets. *Food Security*, 12, 503-515.
4. Bene, C., d'Hotel, E., Pelloquin, R., Badaoui, O., Garba, F., Sankima, J. (2024). Resilience – and collapse – of local food systems in conflict affected areas: reflections from Burkina Faso. *World Development*, 176, 106521.
5. Boikivska, G., Vynnychuk, R., Povstyn, O., Yurkevich, H., Gontar, Z. (2021). Cognitive aspects in the process of human capital management in conditions of post-pandemic social constructivism. *Postmodern Openings*, 12(1), 296-307. <https://doi.org/10.18662/po/12.1/261>
6. Cheo, F. (2023). *Household food security during armed conflicts. Livelihood coping strategies in the Bamenda Municipality of the Northwest Region of Cameroon*. GRIN Verlag.
7. Collier, P. (1999). On the economic consequences of civil war. *Oxford Economic Papers*, 51(1), 168-183.
8. Corley, A. (2021). Linking armed conflict to malnutrition during pregnancy, breastfeeding, and childhood. *Global Food Security*, 29, 100531.
9. Dago, E. (2021). Armed conflicts and food insecurity- a short literature review. INRAE, CIRAD, CIAT, Montpellier.
10. Delgado, C., Murugani, V., & Tschunkert, K. (2021). Food systems in conflict and peacebuilding settings: Pathways and interconnections. *Policy Commons*. <https://policycommons.net/artifacts/2331278/food-systems-in-conflict-and-peacebuilding-settings/3091903/>
11. Drebot, N. P., Kryshchanovych, S. V., Kryshchanovych, M. F., & Kozmuk, N. I. (2019). State regulation of sustainable development of cereal territories: External experience. *Financial and Credit Activity: Problems of Theory and Practice*. 1(28), 480-487. <https://doi.org/10.18371/fcaptop.v1i28.161703>
12. FAO (2006). Food security. *Policy Brief, Issue 2*, June. [https://www.fao.org/fileadmin/templates/faoitally/documents/pdf/Food\\_Security\\_Concept\\_Note.pdf](https://www.fao.org/fileadmin/templates/faoitally/documents/pdf/Food_Security_Concept_Note.pdf)
13. FAO (2022). *Note on the impact of the war on food security in Ukraine*. <https://openknowledge.fao.org/server/api/core/bitstreams/34242a1f-ff31-4985-a8c6-cd0ac89c8dc8/content>
14. Ferdman, H., Kryshchanovych, M., Kurnosenko, L., Lisovskiy, L., Koval, O. (2022). The use of digital technologies for the economic development of the region in the system of digitalization of public administration. *IJCSNS. International Journal of Computer Science and Network Security*, 22(8), 81-86. <https://doi.org/10.22937/IJCSNS.2022.22.8.11>
15. Gbanie, S., Griffin, A., & Thornton, A. (2018). Impacts on the urban environment: Land cover change trajectories and landscape fragmentation in Post-War Western Area, Sierra Leone Remote Sens. *Basel*, 10, 129.
16. George, J., Adelaja, A., & Awokuse, T. O. (2021). The agricultural impacts of armed conflicts: The case of Fulani militia. *European Review of Agricultural Economics*, 48(3), 538-572.
17. Huzar, U. & Zavydivska, O. & Kholyavka, V. & Kryshchanovych, M. (2019). Formation of psychological peculiarities of time-management of a modern expert in the field of finance. *Financial and Credit Activity: Problems of Theory and Practice*. 4(31), 477-486. <https://doi.org/10.18371/fcaptop.v4i31.191001>
18. Ivashova, L., Larin, S., Shevchenko, N., Antonova, L., Yurchenko, S., Kryshchanovych, M. (2022). Introduction of smart-management into the system of public management of regional development in the context of strengthening national security of Ukraine. *IJCSNS. International Journal of Computer Science and Network Security*, 22(9), 369-375. <https://doi.org/10.22937/IJCSNS.2022.22.9.49>
19. Jaafar H.H., E. Woertz (2016), Agriculture as a funding source of ISIS: A GIS and remote sensing analysis. *Food Policy*, 64, 14-25.
20. Kemmerling, B., Schetter, C., & Wirkus, L. (2022). The logics of war and food (in)security. *Global Food Security*, 33, 100834.
21. Kryshchanovych, M., Antonova, L., Pohrishchuk, B., Mironova, Y., Storozhev, R. (2021). Information system of anti-crisis management in the context of ensuring national security. *IJCSNS. International Journal of Computer Science and Network Security*, 21(12), 719-725 <https://doi.org/10.22937/IJCSNS.2021.21.12.98>
22. Kryshchanovych, M., Dragan, I., Chubinska, N., Arkhireiska, N., Storozhev, R. (2022). Personnel security system in the context of public administration. *IJCSNS International Journal of Computer Science and Network Security*, 22(1), 248-254. <https://doi.org/10.22937/IJCSNS.2022.22.1.34>
23. Kryshchanovych, M., Oliinyk, N., Skliaruk, T., Voityk, O., & Doronina, I. (2021). Problems of shaping the business environment in countries with economies in transition: aspects of anti-corruption. *Management Theory and Studies for Rural Business and Infrastructure Development*, 43(2), 316-327. <https://ejournals.vdu.lt/index.php/mtsrbid/article/view/2332>
24. Kryshchanovych, S., Bezena, I., Hoi, N., Kaminska, O., & Partyko, N. (2021). Modelling the assessment of influence of institutional factors on the learning process of future business managers. *Management Theory and Studies for Rural Business and Infrastructure Development*, 43(3), 363-372. <https://doi.org/10.15544/mts.2021.33>
25. Kryshchanovych, S., Chorna-Klymovets, I., Semeriak, I., Mordous, I., Zainchivska, I. (2022). Modern technologies for the development of distance education. *IJCSNS. International Journal of Computer Science and Network Security*, 22(9), 103-108. <https://doi.org/10.22937/IJCSNS.2022.22.9.16>
26. Kryshchanovych, S., Treshchov, M., Durman, M., Lopatchenko, I., & Kernova, M. (2021). Gender parity in public administration in the context of the development of European values in the management system. *Financial and Credit Activity: Problems of Theory and Practice*, 4(39), 475-481. <https://doi.org/10.18371/v4i39.241416>
27. Kryshchanovych, S., Syniuk, O., Yadukha, S., Blyzniuk, A., Bashtannyk, O., & Ravliuk, V. (2023). Determining strategic priorities for forming state policy to provide financial and economic security under martial law. *Financial and Credit Activity Problems of Theory and Practice*, 6(53), 287-299. <https://doi.org/10.55643/fcaptop.6.53.2023.4237>
28. Kryshchanovych, M., Gorban, I., Lesia Kornat, Anatolii Dykyi, Nadiia Marushko (2022). Investment support for the digitalization of socio-economic systems in the context of ensuring security. *IJCSNS. International Journal of Computer Science and Network Security*, 22(6), 733-738. <https://doi.org/10.22937/IJCSNS.2022.22.6.92>
29. Kryshchanovych, M., Vartsaba, V., Kurnosenko, L., Munko, A., & Chepets, O. (2023). Development of public management of financial and economic security in modern conditions. *Financial and Credit Activity Problems of Theory and Practice*, 1(48), 258-267. <https://doi.org/10.55643/fcaptop.1.48.2023.3958>

30. Kryshchanovych, M., Pachomova, T., Panfilova, T., Kurnosenko, L., & Vylgin, Y. (2023). Marketing in public administration in the system of ensuring economic security. *Financial and Credit Activity Problems of Theory and Practice*, 5(52), 532-542. <https://doi.org/10.55643/fcaptop.5.52.2023.4167>
31. Kryvokhizha, E., Bashlay, S., & Kurylo, Yu. (2023). Strategy for ensuring food security of Ukraine in the conditions of war. *Economy and Society*, 55. <https://doi.org/10.32782/2524-0072/2023-55-59>
32. Martin-Shields, C. P., & Stojetz, W. (2019). Food security and conflict: Empirical challenges and future opportunities for research and policy making on food security and conflict. *World Development*. <https://doi.org/10.1016/j.worlddev.2018.07.011>.
33. Muriuki, J., Hudson, D., & Fuad, S. (2023). The impact of conflict on food security: evidence from household data in Ethiopia and Malawi. *Agriculture & Food Security*, 12, 41.
34. Nash, N. (2024). *Hunger: Food deprivation as a military weapon*. Pen and Sword Military.
35. Nguyen, T., Timilsina, R., Sonobe, T., Rahut, D. (2023). Interstate war and food security: Implications from Russia's invasion of Ukraine. *Frontiers in Sustainable Food Systems*, 7. <https://doi.org/10.3389/fsufs.2023.1080696>.
36. Pettersson, T., Davis, S., Deniz, A., Engström, G., Hawach, N., et al. (2021). Organized violence 1989-2020, with a special emphasis on Syria. *Journal of Peace Research*, 58(4):809-825.
37. Ramskyi, A., Gontar, Z., Kazak, O., Podzihun, S., & Naumchuk, K. (2023). Formation of the security environment through minimization of the negative impact of threats in the socio-economic system. *Financial and Credit Activity Problems of Theory and Practice*, 3(50), 256-264. <https://doi.org/10.55643/fcaptop.3.50.2023.4074>
38. Shemyakina, O. (2022). War, conflict, and food insecurity. *Annual Review of Resource Economics*, 14, 313-332.
39. Schanbacher, W. (2010). *The politics of food: The global conflict between food security and food sovereignty*. Praeger.
40. Tranchant, J.-P., Gelli, A., Bliznashka, L., Diallo, A. S., Sacko, M., Assima, A., Siegel, E. H., Aurino, E., and Masset, E. (2019). The impact of food assistance on food insecure populations during conflict: Evidence from a quasi-experiment in Mali. *World Development*, 119, 185-202.
41. USAID (2021). Agriculture and food security. *USAID*. <https://www.usaid.gov/whatwe-do/agriculture-and-food-security#:~:text=What%20is%20Food%20Security%3F&text=Food%20security%20means%20having%2C%20at,hunger%20or%20fear%20of%20hunger>
42. Verme, P., & Gagliarano, C. (2019). Optimal targeting under budget constraints in a humanitarian context. *World development*, 119, 224-233.
43. Yin, H., Butsic, V., Buchner, J., Kuemmerle, T., Prishchepov, V. A., Baumann, M., Bragina, V. E., Sayadyan, H., Radeloffa, C. V. (2020). Agricultural abandonment and re-cultivation during and after the Chechen Wars in the northern Caucasus. *Global Environmental Change*, 55, 149-159.

**Primary Paper Section: A**

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## ASPECTS OF PUBLIC ADMINISTRATION IN THE CONTEXT OF REGIONAL DEVELOPMENT DURING MARTIAL LAW

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**Abstract:** The article represents an attempt to outline the most important aspects, challenges, and prospects for public administration in Ukraine in regional context during the wartime. It is shown that poverty and regional disbalances in Ukraine aggravated during two years of war, and the situation in comparative plane is worse than it was in Syria during first two years of war in 2011-2013. Based on Pakistani and Syrian experience and practices, vectors for public administration necessary tasks and available options concerning regional development are suggested.

**Keywords:** public administration; regional development; war conflicts; economics; poverty; reconstruction.

### 1 Introduction

War is a problem for progress. Although there are direct casualties in war, there are much more catastrophic repercussions. Armed conflict frequently results in forced migration, refugee movements, capital flight, and the destruction of social infrastructure in addition to combat deaths. Institutions in the social, political, and economic spheres suffer irreversibly. There are significant effects of conflict, particularly civil war, on development. Between nations and areas within nations that have undergone armed conflict and those that have not, war causes a development divide.

The citizens bear the expense of conflict. Development in reverse is what conflict is. As correctly pointed out by Gates et al. [9], the indirect effects of conflict outweigh the negative direct effects by a wide margin. Even if important economic statistics may provide a positive image, war nonetheless has an immediate and long-lasting negative impact on growth. One significant barrier to achieving the Millennium Development Goals is armed conflict. In the ongoing conflict between Russia and Ukraine, Ukraine is one of the shining instances. In January-February 2024, Ukraine's GDP grew by 3.6% compared to the same period last year. In the Ministry of Economy, positive processes are associated with increased investment demand, export of agricultural products, functioning of the Ukrainian maritime corridor, and stable work in the field of energy. However, experts emphasize the importance of budget subsidies that Ukraine continues to receive from abroad during the war. Last year, the state budget deficit of Ukraine reached UAH 1.33 trillion, which is UAH 418.9 billion more than in 2022, according to data from the State Treasury. Before the full-scale invasion, in particular in 2021, the deficit of the general fund of the state budget amounted to UAH 166.8 billion [4]. The state budget for 2024 projects a UAH 1.6 trillion (about USD 41 billion, or 19% more than 2023) deficit, which would be the biggest one to date in absolute terms. Ukraine is going to be reliant on outside funding in the upcoming years. According to IMF baseline projections, Ukraine's shortfall in external finance for the years 2024-2027 may total USD 85.2 billion. In the worst case, this sum may reach USD 103.9 billion [5]. In addition, the conflict has reversed fifteen years of progress, resulting in 7.1 million more people living in poverty and an increase in the overall poverty rate to 24.1% by 2022. A few of the main causes of poverty in the nation are vulnerability, loss of livelihoods,

rising expenses, economic downturn, and forced relocation. Last year, the poverty rate increased to 24 percent. World Bank analysts report that since the start of the full-scale conflict in Ukraine, the cost of food, gasoline, and services has increased significantly—in some cases by as much as 50%. Furthermore, they point out that the unofficial unemployment rate in Ukraine is 36%, and as of the end of 2022, the inflation rate was 26.6%. This means that an increasing number of Ukrainians will likely be living in poverty in the future. Forecasts by researchers indicate that the nation's poverty rate may increase to 55%. In other words, one in every two people might live in poverty [11]. Even if wages have not decreased since the war began in February, IntelliNews statistics for 2022 [30] show that the average income in Ukraine has decreased by 25% in US dollars due to the hryvnia's depreciation, and wages are currently \$150 less than in Moldova, the most impoverished nation in Europe (see Figure 1).



Figure 1. Ukraine nominal vs dollar income [30]

For comparison, it is interesting to look at data on Syria. As Gallup statistics shows, unlike the Ukrainian 'picture', in Syria, in two years of war (2011-2013), the number of "suffering" and "struggling" did not manifest sharp changes (see Figure 2).

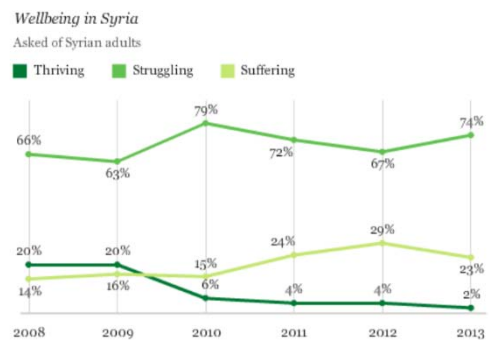


Figure 2. Wellbeing in Syria, 2008-2013 (according to Gallup surveys) [7]

The distance between cities and villages is likewise very great. In rural places, the impacts of poverty are most apparent. Furthermore, Ukraine's post-war recovery is under jeopardy due to its population decline. After moving abroad, millions of Ukrainian women and children have no intention of returning to a nation that has seen a population decline of more than 30% since gaining independence in 1991. In the conditions of current war, development of Ukraine's regions is ongoing extremely uneven. Central (national) public administration does not have enough agility, flexibility to address dynamically changing 'state of the art' in regions and unlikely can effectively take into account all subtle and sometimes latent peculiarities which, however, as the result influence regions' and territories'/communities' development during martial law. But local self-government is the force capable of changing situation to the better. In these conditions, the role of public administration in regional development is of crucial importance.



## 2 Materials and Methods

The theoretical basis of the research included the scholars' works in the field of public administration, scientific achievements in the field of institutional and evolutionary economics, the theory of military-political and social conflicts. At different stages of the study, the following research methods were used: abstract-logical, constructive, system-logical, methods of comparative analysis, grouping, generalization, etc. The main research tools were the methods of analysis and synthesis. Due to the fact that this study lies at the junction of subject fields of various disciplines (for example, economic theory, economic history, international political economy, political science, etc.), the methodological basis of the study is based on interdisciplinary, political economic approach to the mutual influence of economic factors and armed conflicts.

## 3 Results and Discussion

Not only interstate conflicts, but also civil wars and internal interethnic conflicts are obstacles to regional development. In particular, ethnic separatism is evident in South Asia, particularly in India, Pakistan, and Sri Lanka, leading to terrorist attacks and the death of many people.

Pakistan was created from five provinces populated by different peoples, but professing the same religion - Islam. As one of the authoritative foreign experts on Pakistan, a senior fellow in foreign policy studies at one of the oldest think tanks in Washington, the Brookings Institution, Stephen Philip Cohen, notes, each of the five provinces that became part of Pakistan was associated with a specific ethnolinguistic group. These groups took an unequal part in the creation of Pakistan, were in very complex relationships with each other, and had different visions of the future of the Muslim state, which predetermined the rapid growth of interethnic contradictions after the formation of Pakistan [22]. Moreover, the Muslim population in the newly created state was also disunited, since it professed the most diverse directions of Islam, as a result of which the state remains politically vulnerable to this day.

Pakistan has been repeatedly predicted to collapse, but despite numerous internal socio-political upheavals, the state exists, is developing nuclear programs, has one of the strongest armies in the region, its economy is developing, and its population is steadily growing. Experts note: "The mystery of Pakistan remains one of the constant themes in scientific and journalistic literature throughout, essentially, the entire period of its 60-year existence" [22]. The credit for this goes to local self-government. Optimization of territorial development, highly 'customized', taking into account all the subtle features, interweaving of social processes, etc., ultimately leads to synergy in the entire national socio-economic system.

Pashtun regions in Afghanistan and Pakistan have greater incomes, better access to public amenities, and political backing for the current government. Over the past three centuries, Pashtun kings have consistently ruled Afghanistan, and their influence is clearly seen.

The length of a civil war is highly correlated with high levels of ethnic polarization [23]. Language is a major component in starting civil wars, but Zhukov's study on Ukraine [32] demonstrated that the cost of revolt in terms of money impacts the degree of resistance. More linguistically and ethnically diverse and oil-rich nations are more likely to experience civil instability. Moreover, violent crime is less common in prosperous and democratic nations [1]. However, Elbadawi and Sambanis contend that ethnic differences do not adequately account for the frequency of civil violence in Africa. Rather, poverty, a reliance on natural resources for economic growth, and inadequate political institutions all contribute to civil war [6].

The nature of public goods determines the link between variety and their availability. Culturally-oriented public goods are highly provisioned due to demand. Pashtuns have long dominated

politics in modern-day Afghanistan, as demonstrated by Qaiser and Grigoriadis [24]. This has also led to an increase in their wealth; Pashtuns are not only wealthier than other Afghan ethnic or linguistic groups, but they also have better access to basic public goods like electricity and clean drinking water. According to Qaiser and Grigoriadis [24], variety at the provincial level improves income and trust while decreasing individuality and violence or crime in Afghan society. This is because the diversity of ancient civilizations serves as a potent tool for the diversity of present ethnolinguistic groups. Provinces with the greatest degrees of socioeconomic development are those where several historical civilizations or empires have left their mark.

Reconstruction efforts in Syria are also supposed to revolve around community dialogue [27]. Reconstruction objectives are all too frequently set by implementers and funders rather than the local people who will be using the infrastructure on a daily basis. Plans for reconstruction must be developed in conjunction with significant community engagement. Beyond talks with local governments, this should involve the general public, which includes a diverse range of ethnic groups, religious traditions, and other communities, each of which may have particular requirements that rebuilding might help with.

Not all of Syria is under the hands of the government, and even many of the places it has recently recaptured are still reestablishing official authority after being governed by opposition organizations. It would be very challenging to fairly and equally oversee a nationwide reconstruction effort in such a precarious state of government power. This is quite similar to the current state of affairs in Ukraine, where several communities in the country's east and south have been returned from the invaders to Ukrainian sovereignty and vice versa. Frontline is also 'in motion'. Naturally, this presents serious difficulties for local public management. Communities are now facing unprecedented challenges as a result of a full-scale war, from problems of destroyed infrastructure, shortages of human resources, to challenges related to the relocation of businesses or the creation of necessary conditions for military personnel and their families [26].

To better understand these challenges and identify the needs to address them, the Alliance of Ukrainian Universities, with the support of the International Renaissance Foundation, conducted an in-depth study in twelve selected communities, each with a unique experience. The cities were chosen for study due to their diversity - from rear regions (Ivano-Frankivsk, Lviv, Rivne regions) to frontline zones and communities that were de-occupied (Chernihiv, Sumy, Kharkiv, Dnipropetrovsk regions). This provides an opportunity to see a broader picture of the challenges faced by different regions of Ukraine. Particular attention was paid to identifying the specific needs of communities in three key areas: resilience (sustainability), development, and recovery. The study was conducted in February-April 2024 by teams of universities that are part of the Alliance. During the deep dive into the lives of communities, a wide range of data was collected, including statistical indicators and individual reports from each community. In particular, the study showed that resilience remains the most critical issue in the third year of a full-scale war. The majority of surveyed communities (eight out of twelve) consider resilience to be the highest priority [26]. Community resilience is measured by its ability to respond to emergencies and crises [2; 3; 8; 10; 12-21]. The above-mentioned study showed that residents assess the level of resilience of their communities based on several key indicators: government response, effectiveness of information, and quality of shelters. Interestingly, residents' satisfaction with government response to emergencies varied: communities in Lviv Oblast received lower ratings, while frontline communities in Dnipropetrovsk Oblast received higher ratings.

The assessments of the development needs of residents obtained in the communities are generally typical and are not tied to a region: communities in the west of the country do not differ in their assessments of development from those located near the front or those that have experienced occupation. At the same

time, some of them have their own specific problems. Thus, in two communities of the Dnipropetrovsk region, the areas of sports and preschool education were assessed as having quite low level. In the community of the Lviv region, problems with heat supply were recorded. In half of the communities, residents assessed the area of inclusiveness and barrier-free public spaces quite negatively.

Business is the basis of the economy, and therefore, comprehensive support for local entrepreneurs will help to increase the solvency of the community. In particular, business representatives noted the need to reduce rent for municipal property and provide benefits for the payment of local taxes. This will help create favorable conditions for the development of entrepreneurship and economic growth of communities. Many respondents noted that local authorities should more actively support business initiatives and focus on the development of small and medium businesses [26].

In general, despite significant difficulties, many communities demonstrate a high capacity for adaptation and development. An important condition for successfully overcoming challenges is increasing the level of interaction between the central government and the local government, business and public organizations, as well as attracting external resources and expertise. Involving the public in the decision-making process is also an important element for ensuring transparency and accountability of the government.

Each region has its own problems and features that need to be taken into account. Ukrainian experts note that the need for individual approaches to different regions became obvious during the COVID epidemic, when the government introduced lockdowns throughout the country, despite local circumstances and the epidemiological situation [31]. The war has posed much more complex challenges to the Ukrainian economy. And, of course, today it is impossible to approach different regions with the same requirements.

In particular, an important area of work in the rear regions is helping businesses create new logistics chains to replace those that were destroyed due to military action and the blocking of seaports. The government should do its utmost to facilitate the import of raw materials to Ukraine that are necessary for the operation of enterprises, as well as help in finding markets and developing export routes for domestic goods. In frontline regions, the authorities can make life easier for businesses by creating a legal mechanism for temporarily suspending the operation of an enterprise. In order for sole proprietors who were forced to interrupt their work due to military actions not to have to close their enterprise and then register it again after the liberation of the territories, it is necessary to provide for the possibility, upon the owner's application, to completely cease all activity, including the payment of any tax obligations, and then, when the entrepreneur deems it necessary, to resume work again without unnecessary formalities. All these points should be considered and addressed by the appropriate regional public administration bodies.

Referring back to the experiences of the Middle Eastern nations during and after conflict, it is important to remember that reconstruction need to be open and incorporate anti-corruption measures, as per the assessment of Syrian specialists. In order to fund physical reconstruction, large construction contracts are typically awarded, which creates the foundation for enormous financial gain. Reconstruction may be a gateway to fortune for government friends if it is not properly guarded. Equal and open access to newly constructed homes as well as rehabilitated housing are also requirements. Abuses are already evident in Syria, as Assad's allies, in particular infamous businessman Rami Makhoul take profit from reconstruction agreements and laws governing property expropriation to ensure that the government has effective control over who will benefit from new construction. Reconstruction projects need strict control to prevent corruption of this kind. Strong control is necessary for rehabilitation projects to prevent this kind of corruption [28].

Similarly, disagreements over property must be properly resolved within the parameters of a wider initiative for property return and restitution.

In the end, post-conflict reconstruction is not an independent process. Instead, it is a part of a bigger shift that involves reconstructing institutions, societal ties, government trust, and physical infrastructure. Syria will need to combine infrastructure and building projects with a wide range of transitional justice initiatives, including as property restitution, security sector reforms, and truth and reconciliation procedures, in order to accomplish this more extensive kind of rebuilding.

The paradigm of transparency is of crucial importance for Ukrainian regions now – both for those near the frontline and in rear, since 'loud' corruption scandals undermined citizens' trust in public administration. At the same time, best practices of Syria, Pakistan, Afghanistan, and other countries with the 'experience of war' can be already now adapted and used for rear regions in Western Ukraine. Taking into account significant influx of internally displaced persons there, it seems expedient to study the above-mentioned Pakistani experience on strengthening synergetic diversity, as well as some elements of EU countries experience of addressing refugees problem, since war aggravated 'language issue' in Ukraine to great extent, and even crimes based on language differences take place.

It is premature to refer to Syria as a "post-conflict state," as experts correctly point out. It will take more than a year and maybe even more than ten years to reconsolidate Syrian society. However, the country that has recently been through a bloody, protracted civil war has to be rebuilt, and the humanitarian aspect of this process needs to take precedence. The restoration of the nation cannot in any circumstances be associated with the accomplishment of impractical political goals, such as reorganizing the government and seeking Western-style democracy, as was the situation in Iraq during 2003. The prevailing narrative in Syria at the moment is: "We must start with implementable, targeted measures designed to improve the living conditions of ordinary people". Yes, that also holds true for Ukraine. The nation is eager for the conflict to stop and for every step toward EU membership to be completed. Today, regional development need to be a continuous process that is both flexible and scalable.

According to Alex Thier [29], the current peace process in Afghanistan is likely to bring up a long-standing argument about the proper distribution of political power between the national government and local governance institutions. This is stated in his paper, "*The Nature of the Afghan State: Centralization vs. Decentralization*". Talks on decentralization may cut across traditional political lines. For example, while the Taliban and the ruling class agree that centralization is necessary, they argue about who should rule the center, and a number of local powerholders and minorities want more autonomy. Although decentralization has been a contentious subject for many years, it may present chances in the current peace process since it gives the many factions vying for power greater political pie to split. On paper, Afghanistan is one of the world's most centralized nations, but in practice, it is one of the most atomized. For the past century, this tension has molded a large portion of Afghan history. The majority of Afghans have historically lived in rural areas far from the capital, and the country lacks the structures and infrastructure needed to implement strict controls. Strong local social structures and a long-standing legacy of independence also mean that choices that are perceived as being imposed from the outside are frequently met with resistance on the ground. Furthermore, though the two do not always have to be identical, experiences with harsh authoritarianism and corruption have contributed to the public's mistrust of the central government [29]. In reality, the distribution of power and credit among national and local elites is likely to be a major topic of discussion during the deconcentration of authority debate. As a result, efforts must be made to match the elites' need for status and power with the distribution of commodities to the society. Various power centers may provide stability. The reasons why

certain groups believe that too much power in the center is the cause of the issue must be directly addressed in order to concentrate on workable solutions for power devolution that will allow varied political interests to be served without jeopardizing the state's integrity as a country. Because the challenges at hand are so comparable, it appears that such research is very "obligatory" for Ukrainian policy makers and the professional community to examine.

Focusing on areas such as infrastructure, energy, water, transportation, agriculture, education, and health care will be critical for Ukrainians in the long run as well as in the near term. For both individuals who were forced to flee - either overseas or to safer areas of the country - and for those who remained in their homes, investing in these industries will be crucial.

Naturally, this will make it impossible to quickly resolve the issues surrounding the repatriation of all refugees and internally displaced people. Still, hundreds of thousands have either made the decision to return, or they intend to do so soon. Their return and reintegration will also need a political decision, which, in the long run, may be a viable, long-term aid in the stabilization of the political order and the restoration of normal living circumstances, with the backing of the global community.

#### Literature:

1. Anyanwu, J. C. (2014). Oil wealth, linguistic fractionalization and civil wars in Africa: Cross-country evidence. *African Development Review*, 26(2), 209-236.
2. Boikivska, G., Vynnychuk, R., Povstyn, O., Yurkevich, H., Gontar, Z. (2021). Cognitive aspects in the process of human capital management in conditions of post-pandemic social constructivism. *Postmodern Openings*, 12(1), 296-307. <https://doi.org/10.18662/po/12.1/261>
3. Drebot, N. P., Kryshchanovych, S. V., Kryshchanovych, M. F., & Kozmuk, N. I. (2019). State regulation of sustainable development of cereal territories: External experience. *Financial and Credit Activity: Problems of Theory and Practice*, 1(28), 480-487. <https://doi.org/10.18371/fcaptop.v1i28.161703>
4. Dykaliuk, M. (2024, March 19). The economy is growing: what is the secret of stability in the conditions of war. *Tyzhden*. <https://tyzhden.ua/ekonomika-zrostaie-u-chomu-sekret-stijkosti-v-umovakh-vijny/>
5. EGOV (2024). Two years of war: The state of the Ukrainian economy in 10 charts. European Parliament. Briefing. [https://www.europarl.europa.eu/RegData/etudes/BRIE/2024/747858/IPOL\\_BRI\(2024\)747858\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2024/747858/IPOL_BRI(2024)747858_EN.pdf)
6. Elbadawi, E., & Sambanis, N. (2000). Why are there so many civil wars in Africa? Understanding and preventing violent conflict. *Journal of African economies*, 9(3), 244-269.
7. Fakhreddine, J. (2013). Syrian well-being, economy victims of war. *Gallup*. <https://news.gallup.com/poll/164297/syrian-wellbeing-economy-victims-war.aspx>
8. Ferdman, H., Kryshchanovych, M., Kurnosenko, L., Lisovskyi, L., Koval, O. (2022). The use of digital technologies for the economic development of the region in the system of digitalization of public administration. *IJCSNS. International Journal of Computer Science and Network Security*, 22(8), 81-86. <https://doi.org/10.22937/IJCSNS.2022.22.8.11>
9. Gates, S., Hegre, H., Nygard, H., Strand, H. (2022). Development consequences of armed conflict. *World Development*, 40(9), 1713-1722.
10. Huzar, U. & Zavydivska, O. & Kholyavka, V. & Kryshchanovych, M. (2019). Formation of psychological peculiarities of time-management of a modern expert in the field of finance. *Financial and Credit Activity: Problems of Theory and Practice*, 4(31), 477-486. <https://doi.org/10.18371/fcaptop.v4i31.191001>
11. *In Ukraine, the poverty rate rose to 24% last year: what to expect in the future* (2023, October 17). Visit Ukraine. <https://visitukraine.today/blog/2757/in-ukraine-the-poverty-rate-rose-to-24-last-year-what-to-expect-in-the-future>
12. Ivashova, L., Larin, S., Shevchenko, N., Antonova, L., Yurchenko, S., Kryshchanovych, M. (2022). Introduction of smart-management into the system of public management of regional development in the context of strengthening national security of Ukraine. *IJCSNS. International Journal of Computer Science and Network Security*, 22(9), 369-375. <https://doi.org/10.22937/IJCSNS.2022.22.9.49>
13. Kryshchanovych, S., Chorna-Klymovets, I., Semeriak, I., Mordous, I., Zainchivska, I. (2022). Modern technologies for the development of distance education. *IJCSNS. International Journal of Computer Science and Network Security*, 22(9), 103-108. <https://doi.org/10.22937/IJCSNS.2022.22.9.16>
14. Kryshchanovych, S., Bezena, I., Hoi, N., Kaminska, O., & Partyko, N. (2021). Modelling the assessment of influence of institutional factors on the learning process of future business managers. *Management Theory and Studies for Rural Business and Infrastructure Development*, 43(3), 363-372. <https://doi.org/10.15544/mts.2021.33>
15. Kryshchanovych, M., Oliinyk, N., Skliaruk, T., Voityk, O., & Doronina, I. (2021). Problems of shaping the business environment in countries with economies in transition: aspects of anti-corruption. *Management Theory and Studies for Rural Business and Infrastructure Development*, 43(2), 316-327. <https://ejournals.vdu.lt/index.php/mtsrbid/article/view/2332>
16. Kryshchanovych, M., Antonova, L., Pohrishchuk, B., Mironova, Y., Storozhev, R. (2021). Information system of anti-crisis management in the context of ensuring national security. *IJCSNS. International Journal of Computer Science and Network Security*, 21(12), 719-725 <https://doi.org/10.22937/IJCSNS.2021.21.12.98>
17. Kryshchanovych, M., Dragan, I., Chubinska, N., Arkhireiska, N., Storozhev, R. (2022). Personnel security system in the context of public administration. *IJCSNS International Journal of Computer Science and Network Security*, 22(1), 248-254. <https://doi.org/10.22937/IJCSNS.2022.22.1.34>
18. Kryshchanovych, S., Treshchov, M., Durman, M., Lopatchenko, I., & Kernova, M. (2021). Gender parity in public administration in the context of the development of European values in the management system. *Financial and Credit Activity: Problems of Theory and Practice*, 4(39), 475-481. <https://doi.org/10.18371/v4i39.241416>
19. Kryshchanovych, M., Gorban, I., Lesia Kornat, Anatolii Dykyi, Nadiia Marushko (2022). Investment support for the digitalization of socio-economic systems in the context of ensuring security. *IJCSNS. International Journal of Computer Science and Network Security*, 22(6), 733-738. <https://doi.org/10.22937/IJCSNS.2022.22.6.92>
20. Kryshchanovych, M., Vartsaba, V., Kurnosenko, L., Munko, A., & Chepets, O. (2023). Development of public management of financial and economic security in modern conditions. *Financial and Credit Activity Problems of Theory and Practice*, 1(48), 258-267. <https://doi.org/10.55643/fcaptop.1.48.2023.3958>
21. Kryshchanovych, M., Pachomova, T., Panfilova, T., Kurnosenko, L., & Vylgin, Y. (2023). Marketing in public administration in the system of ensuring economic security. *Financial and Credit Activity Problems of Theory and Practice*, 5(52), 532-542. <https://doi.org/10.55643/fcaptop.5.52.2023.4167>
22. Malik, I. (2016). *Pashtun identity and geopolitics in Southwest Asia: Pakistan and Afghanistan since 9/11*. Anthem Press.
23. Montalvo, J. G., & Reynal-Querol, M. (2005). Ethnic polarization, potential conflict, and civil wars. *American Economic Review*, 95(3), 796-816.
24. Qaiser, I., & Grigoriadis, T. N. (2024). Empire, diversity & development: evidence from Afghan provinces. *Applied Economics*, 1-16. <https://doi.org/10.1080/00036846.2023.2298213>
25. Ramskyi, A., Gontar, Z., Kazak, O., Podzihun, S., & Naumchuk, K. (2023). Formation of the security environment through minimization of the negative impact of threats in the socio-economic system. *Financial and Credit Activity Problems of Theory and Practice*, 3(50), 256-264. <https://doi.org/10.55643/fcaptop.3.50.2023.4074>
26. Shuvarskaya, E. (2024, June 20). How do small communities stand up during war? Research. *ZN.UA* <https://zn.ua/UKRAINE/kak-derzhatsja-malye-hromady-vo-vr-emja-vojnny-issledovanie.html>

27. Suliman, F., Khwanda, H., & Murthy, R. (2023). An analysis of the Syrian economy in the era of military conflict, 2011-2020: The perspective of government and economic. *Journal of Government and Economics*, 11, 100082.
28. *Syria's #10YearChallenge: Best Practices for Reconstruction* (2019). Syria Justice and Accountability Center. <https://syriaaccountability.org/syrias-10yearchallenge-best-practices-for-reconstruction/>
29. Their, A. (2020). The nature of the Afghan state: Centralization vs. decentralization. *United States Institute of Peace. Afghan Peace Process Issues Paper*, November.
30. *Ukraine becomes the poorest country in Europe again* (2022, August 3). *BNE IntelliNews*. <https://www.intellinews.com/ukraine-becomes-the-poorest-country-in-europe-again-252352/>
31. Vasil, R. (2022, May 6). According to the principle of war: the territory of Ukraine is divided into special zones. *Apostrophe*. <https://apostrophe.ua/article/economy/regulatory-policy/2022-05-06/po-printsipu-voyniyi-territoriyu-ukrainiyi-delyat-na-osobyie-zonyi/45735>
32. Zhukov, Y. M. (2016). Trading hard hats for combat helmets: The economics of rebellion in eastern Ukraine. *Journal of Comparative Economics*, 44(1), 1-15.

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## ANGLICISMS IN PROFESSIONAL MEDIA DISCOURSE: DYNAMICS, SPELLING PRACTICE, STYLISTIC TRANSPOSITION

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**Abstract:** The article presents a study of the functional and stylistic manifestations of English loanwords found in modern journalism. Approaches to the comprehensive analysis of anglicisms in professional media discourse have been developed. Names that appeared in the corporate communication of media workers earlier, as well as the latest borrowings related to the digitalization of modern media, are characterized. The dynamics of foreign language borrowings are clarified, and the main factors of their appearance are indicated: the need to name new realities, the absence of a nominative unit that would convey the full meaning of the definition in the Ukrainian language; a more precise and concise meaning of a foreign lexeme; the use of abbreviated names instead of descriptive phrases in order to save language; subjective perception of a borrowed word as fashionable or better in sound. The tendency to use mainly transliterated or transcribed anglicisms that have undergone lexical-semantic adaptation and graphic adaptation has been revealed. Spelling practice confirms the anormative writing of borrowed tokens, because we often record spelling mistakes. In the course of the analysis of corporate professionalisms, it was established that most often, nouns are represented by morphological feature, while comparatively fewer verbs is observed. The stylistic differentiation of borrowings indicates the presence of both neutral lexemes, which often have the meaning of terms, as well as slangisms and jargonisms. According to the thematic spectrum, eight groups of English-language nominations used in the professional media sphere are distinguished and analyzed: 1) names of sites, social networks, services, search engines; 2) names of new journalistic genres and types; 3) borrowings identifying people who work with the preparation of media content; 4) nominations denoting phenomena and processes related to the writing of news texts and content of websites; 5) anglicisms that serve as constituent parts of the news; 6) foreignisms related to virtual mass media and digitalization of information; 7) names representing the realities of modern television journalism; 8) names related to the reliability and transparency of the information space.

**Keywords:** anglicisms; media discourse; professional communication; corporate vocabulary; spelling practice; stylistic transposition.

### 1 Introduction

Borrowing foreign language lexemes is a natural phenomenon for various vocabulary systems, caused by many extralinguistic factors, because any language is not a closed system and cannot function in isolation. With this in mind, foreign language elements will always penetrate all terminology systems. Most of the neologisms of recent years are words of English origin. Anglicisms appeared in the Ukrainian lexicon as early as the 11th century, but then their entry into the Ukrainian language was not as dynamic as in recent decades. The declaration of Ukrainian independence, the European vector of political, economic, and cultural processes, the desire to internationalize the lexical block led to the intensive entry of English vocabulary into the national one. This was influenced not only by the strengthening of international contacts, but also by the active development of information and communication technologies. It caused the appearance of a large number of new realities, and accordingly, words for their nomination. New concepts, penetrating into our life, due to their activity do not have time to get a new name from the national dictionary, but use an already existing English lexeme. As the researchers note, "the reasons for borrowing foreign language components are also the lack of an exact word in the modern Ukrainian language to name a particular concept, a concise name, the subjective perception of a foreign language word as fashionable, as well as the fact that

anglicisms make it possible to more accurately and succinctly outline the meaning of the word" [15, p. 247].

The processes of world globalization, the integration of Ukraine into the EU, orientation towards the countries of the West caused close political, economic, and social interaction of the Ukrainian nation with English-speaking countries, which was reflected at the linguistic level. The large number of borrowings from the English language is caused by the fact that it is the language of international communication, the official language of more than 50 countries of the world, and it is used by large international organizations. Considering this, the frequency of borrowings from the English language is constantly increasing. They penetrate not only into everyday speech, but also official communication. Under the condition of functional and stylistic limitations and preservation of communicativeness, borrowing is one of the main sources of replenishment of the modern Ukrainian vocabulary. Foreign language units are gradually becoming part of the commonly used vocabulary. The replenishment of the Ukrainian language with borrowed components "facilitates the process of universalization and internationalization of the vocabulary, revealed through the use of short, and therefore economical from the point of view of speech efforts, lexemes" [14, p. 22].

Linguistic reasons for foreign borrowings determine the replenishment of the Ukrainian language vocabulary, overcoming the polysemy of a specific word, expanding the means of nomination, a higher degree of terminological certainty of the borrowed lexeme [6, p. 9].

Adaptation of foreign language neologisms in speech occurs mainly through mass media, which are flexible and have almost the greatest impact on society. The extremely fast pace of modern life has led to the fact that native speakers in their daily communication are getting rid of literary norms and increasingly using foreignisms, in particular from the English language. Despite the fact that anglicisms brighten the modern everyday speech of young people, in particular their communication, the corporate vocabulary of many professional spheres is saturated with such borrowings: economy, trade, politics, technology, IT technologies, public administration, sports, culture, etc. The media sphere is also no exception, because journalists in their professional speech often use borrowed tokens to denote certain concepts related to writing texts, preparing news releases, conducting interviews, reports for online or traditional mass media.

The problem of the penetration of foreignisms into the system of the national language, in particular, English loanwords, their structural-expressive and semantic-functional parameters have repeatedly been in the field of interest of Ukrainian linguists. The theoretical paradigm of the functioning of anglicisms, the sphere of their influence, grammatical adopting in the modern Ukrainian language was studied by Z. Zarembuk [25], O. Zubarev [26], K. Pavelkiv [12], M. Pisarenko and P. Polishchuk [13], L. Pribluda [15], L. Priyma [16; 17], and others. Scientists note the ambiguous impact of borrowing foreign words on Ukrainian language, because, on the one hand, it is enriched, and on the other hand, its own elements are displaced [26]. N. Popova [14] drew attention to the structural and semantic specificity of the latest foreign language lexemes in her research. A. Stadni and I. Zozulya, having discovered the peculiarities of the penetration of neo-anglicisms in the modern Ukrainian literary language, presented the following interpretation of the analyzed concept: "anglicisms are words or phrases of any language, borrowed from English, or words or phrases created based on their example" [22]. In the context of modern language fashion, O. Dyolog [3] also considered anglicisms. Orthographic adaptation of neo-borrowings was analyzed by T. Rudakova [18]. The professional sphere of functioning of English-speaking components was studied by Yu. Savina and Yu. Laskava [19].

The integration of English neologisms in the professional terminology systems of individual fields was studied by L. Arkhipenko (economics) [1], I. Varnich (computer sphere) [24], L. Priyma (medicine) [16], I. Feltsan (tourism) [5]. The mass media discourse of English loanwords found interest in the investigations of such scientists as L. Arkhipenko (press of the late 20<sup>th</sup> – early 21st centuries) [2]; O. Gurko [7] and S. Fedorets [4] (advertising discourse); T. Maistruk (journalistic style) [8], M. Navalna (Ukrainian periodical of the beginning of the 21st century) [11]; O. Styshov (vocabulary of the late 20th century) [23]; T. Shinkar, T. Levchenko, and T. Chuban (linguistic-ecological aspect) [20], T. Shinkar (modern media text) [21], and others. In the media scientific field, studies of the functioning of anglicisms in the language of journalistic texts are mainly presented, while the use of English loanwords in the professional activities of journalists is almost left out of the attention of scientists. We sporadically come across the research of Yu. Molotkina, who studied the latest lexemes of foreign language origin from the field of media lexicon [10], and also, in co-authorship with the authors, analyzed the foreign language terminological vocabulary of information technologies in Ukrainian online publications [9].

The layer of foreignisms in the journalistic sphere is extremely interesting from the point of view of functional dynamics, structural and expressive possibilities, spelling features, and semantic specificity. In this regard, our work, dedicated to professional media discourse, is relevant and innovative.

In view of the above, the purpose of the article is to develop approaches to the comprehensive analysis of anglicisms in the corporate communication of media professionals, to clarify their dynamics, thematic features, spelling specificity and stylistic transposition.

## 2 Materials and Methods

The material of the scientific research was constituted of English-language loanwords related to professional journalistic activity. Names that appeared in corporate broadcasting earlier, as well as the latest borrowings related to the digitalization of modern media, are characterized. A number of the following scientific methods were used to investigate the penetration of anglicisms in professional media discourse: the descriptive method, which revealed the specifics of the use of foreign language lexemes in corporate communication; direct observation – to distinguish characteristic linguistic parameters of stylistic coloring and spelling adaptation of anglicisms; discursive analysis – to reveal the specifics of the use of borrowings in modern media discourse; component analysis – for the purpose of studying the meanings of words of English origin; linguopragmatic analysis – for differentiating foreignisms by thematic groups.

## 3 Results and Discussion

Among the main factors of the appearance of English borrowings in professional speech, we single out the following: the need to give names to new concepts, phenomena, and objects; the absence of a nominative unit that would convey the full meaning of the definition in the Ukrainian language; a more precise and concise meaning of a foreign lexeme; the use of abbreviated names instead of descriptive phrases in order to save language; subjective perception of a borrowed word as fashionable or better in sound. Researchers A. Stadny and I. Zozuly indicate three main ways of reproducing borrowings in the modern Ukrainian language: 1) in the Latin alphabet, when the original name is transmitted by the graphic system of the original language in accordance with English orthography, e.g.: *skill*, *meeting*, *skype*; 2) transliteration, when anglicisms are mechanically reproduced in Ukrainian graphics, that is, Cyrillic, while neglecting the sound accuracy of the adapted word, but applying lexical-semantic adaptation, e.g.: *content* – *контент*, *link* – *лінк*, *spam* – *спам*; 3) transcription of borrowed units. Then the phonetic sound is reproduced using the graphic system

of the recipient's language: *лайк*, *пеностити*, *імейл* (*like*, *repost*, *email*) [22].

Monitoring the modern media space, we observe a tendency to use mostly transliterated or transcribed anglicisms that have undergone lexical-semantic adjustment and graphic adaptation, cf. *Російські пропагандисти за рік втратили сотні тисяч підписників у телеграмі*, – ЗМІ (“Russian propagandists have lost hundreds of thousands of subscribers in **Telegram**, mass media”) (“Detector Media”, July 10, 2024); *Росія запустила в мережі черговий фейк про винищувачі F-16: заявляють про можливу ескалацію* (“Russia launched another **fake** on the network about F-16 fighter jets: they claim a possible escalation”) (“TSN”, July 3, 2024); *Стали відомі імена працівників ГРУ РФ, які створюють дінфейки для дискредитації ЗСУ – фото* (“The names of the employees of the GRU of the Russian Federation who create **deep fakes** to discredit the Armed Forces of the Armed Forces became known – photo”) (“TSN”, July 9, 2024); *Мобілізація по-новому і повістки на імейл: які зміни готує Рада в новому законопроекті* (“Mobilization in a new way and **e-mail** summons: what changes is the Council preparing in the new draft law”) (“Suspilne. News”, December 10, 2023); *Після початку повномасштабної війни 62% українців повністю перестали дивитися і читати російськомовний контент* (“After the start of a full-scale war, 62% of Ukrainians completely stopped watching and reading Russian-language **content**”) (“Detector Media”, November 7, 2023); *Радіо «Сковорода» запускає подкаст про безбар'єрність* (“Radio “Skovoroda” launches a **podcast** about accessibility”) (“Detektor Media”, July 10, 2024). An interesting one is a recorded example of writing a transliterated English lexeme in quotation marks: *Соцмережа X приховує “лайки” користувачів* (“Social network X will hide the “**likes**” of users”) (“Social News”, April 13, 2024). Using mostly proper names in professional speech, journalists usually use the Latin alphabet, reproducing borrowings in English graphics: *У Gmail з'явилася нова функція: листуватися тепер зручніше* (“A new function has appeared in **Gmail**: correspondence is now more convenient”) (“News Live”, August 11, 2023); *Клуб УПЛ потребував онлайн за допомогою Skype* (“UPL club trained online using **Skype**”) (“TSN” October 15, 2023); *8 трендів email-маркетингу на 2023 рік* (“8 **email** marketing trends for 2023”) (“AIN.Capital”, February 11, 2023); *Email VS Telegram: як вам зручно отримувати наші новини* (“**Email VS Telegram**: how convenient is it for you to receive our news”) (“Sustainable Solutions Office”, February 13, 2023); *Google додав «синю галочку» в Gmail* (“Google added a “**blue check**” to Gmail”) (“Ukraine World News”, May 4, 2023); *Gmail став четвертим додатком на Android, який встановили понад 10 мільярдів разів* (“**Gmail** became the fourth application on Android that was installed more than 10 billion times”) (“TSN”, January 10, 2022). Occasionally, we find the simultaneous use in the title of one English-language borrowing in Cyrillic and another in Latin: *За пеност – три роки тюрми: волинщина засудили за поширення статті у Facebook* (“Three years in prison for a **repost**: a man from Volyn was sentenced for sharing an article on Facebook”) (“Volyn News” November 18, 2023).

In the course of the analysis of lexeme-professionals borrowed from the medium language, it was established that nouns function most often by morphological feature, verbs are represented relatively less. Journalists in corporate communication use both neutral lexemes and slang or jargon nominations. According to the thematic spectrum, we distinguish the following thematic groups of anglicisms used in the professional speech of medical professionals.

### 1. Names of sites, social networks, services, search engines.

The vocabulary of this thematic group is actively used by journalists in the editorial offices of online media. We observe a tendency to write mostly these names in the titles in Latin with English graphics, cf. *Facebook буде помічати повідомлення від ЗМІ, що контролюються державою* (“Economic truth”, June 5, 2023); *ЗМІ: Google звільнила десятки співробітників за зловживання доступу до даних користувачів та коле*



(“Detector Media”, August 6, 2024); «**Telegram** отримав список «проблемних» каналів від української влади – ЗМІ» (“Glavkom”, March 4, 2024); *У Meta прокоментували масштабний збій у Facebook та Instagram* (“TSN”, March 5, 2024); *Куплений Маском Twitter майже перестав боротися з російською пропагандою – BBC* (“UNIAN”, March 6, 2023).

We see that, using the Latin alphabet, journalists write these names without quotation marks. Occasionally, in their materials, these names are transliterated, at the same time violating the spelling norms of the modern Ukrainian language: *Які ЗМІ українці найбільше читають у Фейсбуці – дослідження* (“Detector Media”, July 17, 2021). The correct way to write the name of the social network is as follows: *Facebook* or the *Facebook network*. In one edition, we record a double spelling: in one case, it is normative: *Міноборони запустило у телеграмі чат-бот “Армія+”* (“LB.ua”, June 20, 2024), in the other – no, cf.: *ГУР: Telegram (correct – телеграм) містить низку загроз для безпеки України* (“LB.ua”, February 14, 2024). With this foreignism, hybrid composites are used in mass media language practice, the first part of which is a borrowed unit in an unadapted form with foreign language graphics, cf.: *У Раді відповіли, чи заборонять ЗМІ створювати Telegram-канали* (“The Council answered whether mass media will be banned from creating Telegram channels”) (“TSN”, April 22, 2024); *СБУ: безпечно месенджера не існує, але деякі Telegram-канали вже заблоковані* (“SBU: there is no secure messenger, but some Telegram channels are already blocked”) (“LB.ua”, April 4, 2024). We identify also other similar application forms: *Viber-канали українських медіа: хто читає, що працює з форматів та які є технічні мінуси* (“Viber channels of Ukrainian media: who reads, what formats work and what are the technical disadvantages”) (“Mediamaker”, November 2, 2023). According to the researchers, “this is a type of interspersion, that is, the use of words in the text with a certain content or stylistic purpose in the sound and graphic form of the source language” [3, p. 46].

In virtual media communication, other borrowings of this thematic stratum that have undergone transliteration are used, but they are relatively few: *Які ЗМІ є достатньо надійними для Вікіпедії* (correct – вікіпедії): *експертна дискусія* (“Detector Media”, July 3, 2020); *Як західні ЗМІ експериментують у твітоку й інстаграмі* (“Detector Media”, January 25, 2022); *У вайбері реалізували функцію стислого викладу непрочитаних повідомлень у групових чатах* (“Detector Media”, April 11, 2024); *Що робити, якщо зник мобільний зв'язок: скачайте собі офлайн-месенджер* (“UNIAN”, October 10, 2022).

To create headlines, as well as in texts, journalists use colorful verbs-occasionalisms, formed from the names mentioned above: *Маск заявив, що ЗМІ мають твітити не більше 10 разів на день, хоча сам публікує в рази більше* (“ZN.UA”, April 19, 2023); *Жити в Києві – це фейсбучити українською* (“Vechirniy Kyiv”, November 8, 2020); *Легше “фейсбучити” на диванах, ніж допомагати фронту* (“Ukr.net”, July 13, 2024); *Як ефективно “зуглити” й перевіряти інформацію* (“Detector Media”, January 11, 2019); *“Інстаграмити” чи “не інстаграмити”?* *Черкацани розповіли про своє ставлення до модного додатку* (“Zmi.ck.ua”, October 14, 2020).

**2. Names of new journalistic genres and types.** In the language space of media specialists, the borrowed lexeme *лонгрід* (*longread* – long read, long text) has gained considerable popularity. This is the name of the journalistic genre, which is characterized by a large volume of content with multimedia content and often an artistic style. We record media studies in the titles of which this anglicism was used: *Як написати цікавий лонгрід в епоху коротких текстів* (“How to write an interesting long-read in the era of short texts”) (“Para”, December 22, 2020); *Гра в довгу: який лонгрід потрібен читачу* (“The long game: what kind of longread does the reader need”) (“Medialab”, May 22, 2020); *Сам собі лонгрід, або як*

*зверстати довгі тексти в онлайн-сервісах* (“Detector Media”, October 7, 2020); *На “Прочерку” вийшов новий лонгрід – цього разу про сьогоднішню журналістику* (“Procherk”, February 14, 2022); *Теребовлянська громада на Тернопільщині: радикальні методи для системного розвитку громади (лонгрід)* (“Persha”, June 1, 2018). The given headings demonstrate a typical spelling error in writing a foreign-language lexeme, because in accordance with Ukrainian spelling norms, we write “u” in common names after the consonants *д, т, з (дз), с, ц, ж, дж, ч, ш, р* before the next consonants (except *й*).

Today, journalists in their professional speech often use the concept of podcast (*podcast* shortened from *iPod + broadcast*). It is a digital media file or series of such files distributed through virtual media for playback on portable media players or personal computers. They belong to the oral genre and are similar to radio shows in content, may contain interviews, various stories, etc. The field of activity related to the creation of podcasts is called podcasting, and the host or author of a podcast is called a podcaster. We see that journalists actively use this anglicism in their professional activities, cf.: *10 подкастів від українських медіа* (“10 podcasts from Ukrainian media”) (“Internews Ukraine”, November 15, 2019); *Добірка подкастів для журналістів та журналісток і не тільки* (tj.org.ua, December 10, 2021); *Почути за лаштунки: подкасти до Дня журналіста* (“Sensor”, June 6, 2024); *Як медіа формують спільноту навколо подкастів – 4 українські кейси* (“Mediamaker”, February 7, 2024). On Detector Media, since the start of the full-scale invasion, media specialists have been creating podcasts aimed at debunking enemy fakes. For example, one of the newest podcasts in 2024 is called “Russian Fake: Knocking from the Bottom”.

When broadcasting news, media workers are increasingly using online streaming of events in real time. To nominate this phenomenon, media professionals use the English lexeme *стрім* (*stream*). In professional communication, synonymous applied concepts are often used: *стрім-трансляція, онлайн-трансляція, потокова трансляція (streaming, online broadcasting)*, etc. It is noted that the stream is a new type of television that entertains the audience, conveys the most interesting of everyday events, intrigues with unusual facts, presents something relevant, valuable and informative. In written communication, journalists often allow the wrong writing of *стрім*, while after “p” they should write “u”, cf.: *Стріми онлайн: 8 порад від “Радіо Свобода”, як зробити хорошу трансляцію* (“Detector Media”, November 12, 2020); *Стрім на Армія ТВ нарожує перегляди і не збирається зупинятися* (NSZHU, January 9, 2024); *YouTube випадково перервала музичний стрім, що тривав 1,5 року* (“Detector Media”, February 25, 2020). Occasionally we fix normative forms: *Meta представила розумні окуляри з ШІ, які дають змогу проводити стріми у фейсбуку та інстаграмі* (“Detector Media”, September 28, 2023).

In periodical journalism, the lexeme *дайджест* (*digest*) is often used. This is a summary of the main content of journalistic materials. The digest contains short annotations and main points of the articles, concisely conveys the content of the most interesting publications for a certain period, cf.: *Дайджест світових ЗМІ: 28 лютого 2024 року* (KyivPost, February 28, 2024); *Що відбувалося в медіасвіті: дайджест vol. травень 2023* (“Mediamaker”, June 1, 2023).

In professional media communication, the term *прес-реліз* (*press release; press* – printing, *release* – issue, publication) has become actively used. This is an official document of a certain press service or mass media; information prepared and distributed by an institution or any body for possible publication in the press. According to the New Spelling Edition of 2019, complex words with the *прес-* (*press-*) component must be written together. Analyzing the written speech of journalists, we occasionally observe non-compliance with these norms, because they still use the old spelling with a hyphen, cf.: *Як написати прес-реліз, який захочуть прочитати* (links-stream.pro,

September 13, 2023); *Як зацікавити журналіста прес-релізом* (“Pressa”, May 24, 2020). Despite isolated cases, we find a tendency for the normative spelling of this anglicism, e.g.: *10 правил пресрелізу, який ЗМІ надрукують безкоштовно* (“Pointer Agency”, January 15, 2021); *Як піарнику написати пресреліз, що потрапить у новини. Лекція Анни Давиденко* (bazilik.media, June 9, 2022).

**3. Borrowing identifying people who work with the preparation of information content.** In media communication, the English term *нюзмейкер* (*newsmaker*) (news + maker) is common. This is usually applied to name a journalist who finds new, socially important information, or a news editor. In another sense, a newsmaker is a person or organization whose activities involve publicity and are of significant interest to the mass media. They can be representatives of political, cultural, or business structures. Experts or eyewitnesses are also called newsmakers. Monitoring the modern media space, we record the frequent use of this borrowed lexeme in materials on professional topics: *Херсонські ЗМІ та коронавірус: хто тут нюзмейкер?* (Institute of mass information, April 29, 2020); *Ve-it Агенсу представила проєкт «Нюзмейкер» до 30-ї річниці Незалежності України* (Institute of mass information, August 31, 2021); *ОПЗЖ – головний нюзмейкер політичних новин у регіональних медіа: дослідження ІМІ* (Institute of mass information, June 4, 2021).

In modern journalism, *стрімери* (*streamers*) have become popular – people who broadcast themselves and their actions or other events live using streaming resources, that is, those who host an online broadcast, cf. *Український стрімер на Twitch зібрав понад 8 мільйонів гривень на три безпілотники “Суч”* (“Detector Media”, July 17, 2023); *Стрімер родом із Шепетівщини та Надя Дорофєєва зібрав понад 6 мільйонів для ЗСУ та Чернігова* (“Day after day”, April 18, 2024); *Відомого білоруського треш-стрімера Mellstroy оголосили в розшук у Росії* (internetua.com, may 28, 2024); *Шевченко та найвідоміший стрімер України анонсували участь у медіалізі Піке* (“Isport”, April 23, 2024). Streamers are special in that they not only transmit new interesting information immediately from the scene online, but the audience can observe the streamer’s personality, appearance, speech, thinking style, jokes, etc.

In modern media communication related to the virtual sphere, the term *контент-менеджер* (*content manager*) is used to denote the editor of the site. His responsibilities include creating, distributing, and curating the content of the site, i.e., filling it with text, graphics, and other information. We see that journalists actively use this foreignism in corporate broadcasting, cf.: *Хто такий контент-менеджер і як ним стати?* (mediavgr.com, April 15, 2022); *Контент-менеджер: що він, чим займається, скільки заробляє* (sendpulse.ua, May 8, 2024); *Чим відрізняється smm-менеджер, таргетолог та контент-менеджер* (impelup.com.ua, July 17, 2023).

Among media specialists, *фактчекери* (*fact-checkers*) play an important role, that is, those who check information for its reliability. Considering the fact that during times of war, the number of enemy fakes and manipulations increases, the mission of fact-checkers is especially tangible, because they help to detect disinformation content and distinguish between true news. Nowadays, this anglicism is extremely common in professional journalistic communication, cf.: *Фактчекери – це сантери, які знешкоджують інформаційні міни* (“Detector Media”, March 30, 2022); *Фактчекери – детективи від журналістики* (“Ukrinform”, October 8, 2020); *Навчитися мислити критично. Як працюють українські фактчекери в умовах війни* (“Mediamaker”, March 27, 2023).

The activity of a journalist working in the interview genre is inseparable from such a concept as *інтерв’юер* (*interviewer*) – the one who takes an interview, that is, asks questions, cf: *Інтерв’юер – людина, яка вибудовує структуру розмови та впливає на зміст майбутнього матеріалу* (“Mediamaker”,

May 24, 2024); *15 типових помилок інтерв’юера* (“Medialab”, October 17, 2019).

**4. Nominations denoting phenomena and processes related to the writing of news texts and content of websites.** In corporate communication, media workers are often referred to by neo-anglicisms such as *копірайт* (*копірайтинг*), *копінейст* (*копінаст*) and *перайт* (*copywriting, copypaste, and rewrite*). In journalistic practice, the foreignism *копірайтинг* (*copywriting*) refers to texts created by the author himself, cf: *SEO-копірайтинг всемогутній, або Тренди написання текстів* (Textum, February 20, 2024); *У чому різниця між копірайтингом та журналістикою?* (“Slaidik”, April 11, 2020); *Копірайтинг: коли слово продає краще за менеджера* (elit-web.ua, September 27, 2023).

We observe a tendency among journalists to use the slang derivationally truncated form of *копірайт* as a synonym for the lexeme *копірайтинг*, although the word *копірайт* has another meaning: this is what is called the sign of copyright protection marked with the symbol “©”. In daily communication, during the preparation of texts, journalists also use the slang term *копінаст* (*copypaste*), which consists of two words derived from the commands *copy* and *paste*, slang. *copypaste*, or “*копіювати – вставити*”. This is a way of creating a news story by copying fragments from several sources or transferring already existing text unchanged. In connection with the extremely fast pace of broadcasting news in the Internet mass media, editorial staff do not have time to create news on their own, so they repost it from other information resources. Given the fact that the news feed today is updated after a short period of time, measured mostly in minutes, this practice is the most common in media activity, although it violates journalistic standards and professional ethics, because the most valuable material is the one that is written independently. In professional media broadcasting, synonymous nominations are used, reproduced in different ways from borrowing: *копінаст* / *копінейст* / *копінаста*. We observe that journalists consistently use the two lexemes *копінаст* and *копінейст*, interchangeably, cf.: *Куди дрейфус сьогодні новинна журналістика? Еволюціонує, якщо порівняти з доцифровою епохою, чи деградує, бо все заповнило копінаст? Але кожна редакція мала б підійти до копінейсту так, щоб у підсумку саме ваша публікація виявилася набагато точнішою і інформативнішою* (“Glavkom”, September 18, 2020); *Копінаст російської пропаганди в українських новинах* («Institute of mass information, October 17, 2019); *У регіональній журналістиці багато копінейсту без належних посилань* (“Editorial portal”, March 18, 2019); *Копінейст-журналістика призвела до того, що люди вже беруть не тільки фото, тексти і відео, а й більший контент* (“Medialab”, December 13, 2020); *Копінейст, чорнуха та моральність: що триовісник львівські медіа* (“Hromadsker radio”, November 14, 2019).

Mass media workers also use the verb forms *копінейстити* / *копінастити*, cf.: *Як припинити копінейстити й почати робити новини* (“Medialab”, December 22, 2019); *Відповідно, і медіа будуть думати, як продукувати якомога більше такого контенту, а не копінейстити новини* (“Detector Media”, December 17, 2021); *Якщо ваше видання має власника, який вимагає від вас не критикувати міську владу й копінейстити офіційні повідомлення в новини, не зобов’язуйтесь перед читачами бути безсторонніми і всебічно висвітлювати важливі для міста події* (“Long dog”, November 20, 2020); *А що таке робота медіа? Медіа не може копінастити. Журналісти мають працювати, як ми кажемо, у полі, якщо вони справжні журналісти* (“Detector Media”, May 21, 2024); *Як такої стрічки новин в нас немає, ми тільки до цього йдемо, це дуже ресурсна штука – не копінастити, а робити власні новини* (“Hromadsker radio”, December 14, 2021). We sporadically record cases when journalists put these verbs in quotation marks: *Чим більше журналіст із традиційного ЗМІ буде “копінейстити” з вашого релізу, тим більше роботи ви за нього зробите* (Texty.org.ua, April 15, 2021); *Ми підкреслили, що потрібно*

думати, а не просто “копіювати” (Global Investigative Journalism Network, June 4, 2024).

When working with texts in the media sphere, such a phenomenon as *рерайтинг* (*rewriting*) is known. Rewriting has the following four types: text reduction, partial revision, classic revision, and deep rewriting. Usually, rewriting involves saving money, because the cost of working with such texts is much lower than with materials created with the help of copywriting. We come across the use of both the full lexeme *рерайтинг* and its truncated version – *рерайт*, cf.: *Рерайтинг: від азів до вершин майстерності* (“Textum” December 25, 2019); *Як рерайтинг служить онлайн-журналістиці* (“Detector Media”, April 23, 2020); *Що таке копірайтинг, рерайтинг, постинг, неймінг?* (brainlab.com.ua, November 20, 2020); *Виявили, що більшість текстового контенту не оригінальний, а рерайт з інших ЗМІ* (“The Village”, October 2, 2023); *Також у розслідуванні зазначають, що більшість новин The Gaze – рерайт матеріалів іноземних медіа* (“Mediamaker”, October 3, 2023); *Рерайт текстів і машинна маячня: що насправді може chatGPT* (“Chitomo”, March 14, 2023).

In the media industry, *постинг* (*posting*) is a common phenomenon – it means writing posts to order for a certain fee, cf. *Як зробити відкладений постинг в Instagram* (“SendPulse”, March 5, 2024); *Безкоштовний гостьовий постинг: чи ефективний він для SEO в 2022 році* (prposting.com, July 15, 2023).

**5. Anglicisms that serve as constituent parts of the news.** An important component of many journalistic materials is *лід* (*lead*) – this is a short text presented in one or two sentences that concisely describes the main thing in the news (place, time, number of participants, bright detail). We identify journalistic materials-recommendations relating to this component of the media text: *Просте правило, як написати ідеальний новинний лід* (“Medium”, June 18, 2019); *Як створити ідеальний лід* (“Detector Media”, February 21, 2020); *Перший абзац тексту має бути, як Бред Пітт. Коротко про те, як написати лід* (mk-translations, March 29, 2023). A synonymous term for the designation of the *лід* in the news is a *хедлайн* (*headline*) – a synonym of a headline or a fragment of a headline, more often – the designation of a lead that summarizes and simultaneously performs the functions of a main line.

An additional component of news is *бек* or *бекграунд* (*back* or *background*) – this is secondary information, represented by a selection of materials that create an informational background for socially important news. Background often provides information about the source of the described problem, biographical reference, or, conversely, its continuation, development, clarification and comments, cf.: *До новин на сайтах має бути дописано бекграунд* (Institute of mass information, February 27, 2020). Journalists also use parallel writing *бекграунд*, cf. *Для нього в кінці новини є бекграунд – опис передісторії з посиланням на попередні публікації, довідкові факти, корисні для розуміння* (“Medialab”, September 5, 2021).

Any online news story that is reposted from another online journalistic publication must be hyperlinked to the original source. Despite the fact that the term *посилання* is mostly used in business communication, in corporate daily communication, media professionals use the English term *лінк* (*link*), cf.: *“Лінк” чи “посилання”: мовознавець запропонував давнє забуте слово* (gazeta.ua, April 6, 2024). We note an interesting phenomenon when a Ukrainian-language (*посилання*) and an English-language lexeme (*link*) are used in parallel in one journalistic publication, cf.: *Google видалив посилання на 12 новин BBC відповідно до «права на забуття»* (headline); *Google видалив лінки на 12 матеріалів BBC News із пошукової видачі відповідно до контрверсійного «права на забуття», що почало діяти на території ЄС у травні* (лід) (“Detector Media”, August 20, 2019). In some cases, we find

anglicism transmitted by the original language: *Це свідчить про те, що це інтерактивний лінк* (hostenko.com, May 31, 2023).

Compared to the primary meaning, the term *сніпет* (*snippet*) acquires a different meaning in journalistic practice. This is the name given to a small text fragment from a site page found by a search engine, which is used as a description of a link in search results. Usually, the snippet contains the context in which the keyword occurred in the text on the page, e.g.: *Зазвичай для Telegram та Facebook ми використовуємо схему “сніпет + підводка”, в Instagram публікуємо слайдери з основною інформацією з тексту та фото»* (Institute of mass information, November 28, 2023); *Як правильно зробити сніпет для сайту: рекомендації, шаблони, генератори* (expans.ua, January 18, 2021).

**6. Foreignism related to virtual mass media and digitalization of information.** Today, the borrowed lexeme *вебсайт* (*website*) is in active use. This concept is understood as a set of web pages available on the Internet and united by content and navigation under a single domain name. Almost all modern Ukrainian mass media, even printed ones, have their websites. Analyzing media content, we come across the following publications with this borrowed lexeme: *Бєб-сайт прирівняли до засобу масової інформації: нова практика Верховного Суду* (vkr.ua, Mu 26, 2021); *Інтеграція соціальних медіа в веб-сайт: краці практики* (it-rating.ua, March 24, 2024); *Заборонити використання “руського язика” для веб-сайтів зареєстрованих в .UA доменній зоні, ЗМІ та підприємств що зареєстровані в Україні* (petition.kmu.gov.ua, July 21, 2023). We note that journalists often violate the spelling rule regarding this borrowing, because according to the New Spelling Edition of 2019, all words containing the *web-* component must be written together. Only occasionally do we record the normative writing: *За задумом, цей вебсайт орієнтований на мешканців США й Великої Британії»* (“The Village”, October 2, 2023).

Speaking about the information content of the site, the term *контент* (*content*) is used in modern journalism. This is information directed at the final audience, which the developer forms independently or copies in compliance with current legislation. We identify media publications in which this borrowed lexeme is actively used: *ІМІ запропонував рекомендації, як відповідально публікувати травматичний контент* (“Detector Media”, July 11, 2024); *Мультимедійний контент у ЗМІ: як оформити й адаптувати до різних платформ* (“The Lede”, November 23, 2022); *Соцмережі, дружинні медіа: де і як просувають контент локальні запорозькі сайти* (Institute of mass information, November 30, 2023). We observe such a feature that often the anglicism *content* is used in a construction with an adjectival form, cf.: *Що потрібно знати про візуальний контент для онлайн-медіа* (“Medium”, September 26, 2020); *Грант на створення незалежного контенту для медіа: як подати заявку* (“Shotam”, March 16, 2024); *Переваги розміщення мультимедійного контенту на вашому вебсайті, наприклад, відео та зображень* (ranktracker.com, June 29, 2023); *Виклик для медіа: як створювати чутливий контент під час війни?* (“Povaga”, December 5, 2022). Also, English word *діджитал* (*digital*) is used, cf. *В Україні запустили міжнародний проєкт «InfoPoint agency», який об'єднав національні українські діджитал-медіа та незалежні білоруські, що працюють у вигнанні, задля фінансової стабільності* (“Detector Media”, May 10, 2022); *Нові можливості від УАМБ: 50 редакцій зможуть розвинути власні діджитал-платформи та отримають мінігранти на реалізацію власних ідей* (“Ukrainian Association of Periodical Press Publishers”, December 22, 2022). We observe a tendency of a spelling error in the transmission of this borrowing into Ukrainian, because according to the norms, after the letter *д*, one should write *и*, not *і*. We note that this lexeme is often a component of applied forms: *диджитал-медіа, диджитал-платформа, диджитал-технології* (*digital media, digital platform, digital technologies*), etc. Sporadically, we record the transmission of a

non-transliterated nomination in English graphics: **Digital-marketing: основні поняття та інструменти** (elit-web.ua, July 10, 2023).

In media practice, the expression **клікбейт** (*clickbait*) is often used. This lexeme is the title of a journalistic publication that forces an Internet user to click on it, cf.: *Що таке клікбейт? Коли заголовки мають важливе значення* (“Ghvara media”, February 10, 2023); *Ютуб-клікбейт убиває журналістику* (“Detector media”, May 8, 2024); *Жахливо драмує, але все ще ефективний: що таке клікбейт і як він працює* (mc.today, August 22, 2023).

In the speech of issuing editors, the English lexeme **сервер** (*server*) has existed for a long time. This is the name given to a computer or program capable of automatically distributing information or files under the control of a network operating system or in response to requests sent online by users, cf.: *12 найкращих безкоштовних програм для медіа-серверів на Windows I Linux* (hostzealot.com.ua, November 29, 2023); *Як налаштувати власний домашній медіа-сервер – покрокова інструкція* (24 channel, April 8, 2023); *У США кіт спричинив збій на сервері Департаменту у справах ветеранів – ЗМІ* (“Bukvy”, October 10, 2023).

In the virtual communication of media people, the abbreviation **SMM** (social media marketing), which is transmitted in mass media mainly in the original language, is becoming popular. This is a set of measures that involves the use of social media as channels for promoting companies and solving other business tasks, cf.: *SMM у локальних медіа: як це працює* (“Medialab”, August 19, 2020); *SMM для медіа – не єдиноріг. І не про те, щоб вічно знати трафік на сайт* (proidei.com, March 30, 2020). Occasionally we find a transliteration of this borrowing: *У нас є дві см-менеджерки, які адаптують контент, створюють власний і комунікують у соцмережах”, розповів головний редактор сайту Олексій Туча* (Institute of mass information, November 28, 2023).

**7. Names representing the realities of modern television journalism.** A verbal TV reporter technique, when a journalist works directly in the frame, often at the scene of the event itself, is called **стендап** (*stand-up*) in professional broadcasting, cf.: *Як правильно записати стендап у новинному сюжеті* (jta.com.ua, 20.06.2023); *«Що таке стендап і чому він став популярним в Україні: відповідь комікеси»* (“RBK Ukraine”, April 4, 2024).

Today, such a type of program as **токиоу** (*talk show*) is extremely popular on television. Usually, invited experts on some specific issues, invited guests or viewers participate in talk shows. The communication of the guests of the TV program is usually organized by one, sometimes several TV presenters. In the spelling practice of journalists, we record mostly erroneous writing of this borrowing with a hyphen, cf.: *Форма і зміст в українських політичних ток-шоу* (nsju.org, June 25, 2020); *Харкові затримали колаборантку, яка збирала матеріали для сюжетів ток-шоу Скабсевої та Соловйова* (“Novinarnia”, May 1, 2024), while under the new spelling, the lexeme must be spelled together. Anglicism such as **брифінг** (*briefing*) is also associated with television. This is an information gathering of media representatives, at which the position of state bodies, organizations, and individuals on a certain issue is presented, the expected course of the planned action is covered, etc. The main genre feature of the briefing is brevity in stating the essence of the issues that are touched upon. The briefing does not include questions from journalists, cf.: *Брифінг. Західні ЗМІ коментують вихід українських військ з Авдіївки* (Voice of America, February 19, 2024); *Для місцевих представників ЗМІ проведено брифінг* (rv.tax.gov.ua, October 12, 2013).

**8. Names related to the credibility and transparency of the information space.** The lexeme **фейк** (*fake*) is one of the most widespread in the infospace today. It means presenting deliberately false information or facts in a distorted form.

Nowadays, a fake is a tool of information warfare, a way of manipulating people's consciousness by providing incomplete information, part of it, a distorted context in order to push the audience to the actions or thoughts needed by the manipulator. We fix a considerable number of media headlines with this anglicism: *Топ абсурдних російських фейків про Україну за час повномасштабної війни* (“Word and deed”, May 12, 2023); *Фейки Кремля про Україну: в хід пішли “фейкові фактчекінги”* (“Radio Svoboda”, May 11, 2024); *Про що цього року брехала Росія: фейки, дезінформація та вкиди про російсько-українську війну і як їм протидіяти* (“Suspilne News”, March 21, 2023).

The construction **фейк-нюз(с)** (*fake news*) is also common in media broadcasting. It is fake or fake news, which involves manipulative distortion of facts and disinformation. This type of news content is created with the aim of ignoring the editorial norms adopted in the mass media. It does not stand up to any, even superficial, tests for relevance and reality, but despite this, it has a powerful effect on the consciousness of a large number of people. Journalistic practice testifies to the activity of this foreign language usage. We fix the transmission of the name mainly in English graphics, e.g.: *Фантастичні фейки й де їх шукати. Як fake news стало поняттям року* (“Detector Media”, December 20, 2019); *Але з розвитком цифрових технологій, соціальних мереж і стрімкого збільшення кількості інтернет-користувачів fake news настільки цільно увійшли в наше життя, що відрізнити правду від маніпуляції стає складно навіть для тих, хто в темі* (“Interfax-Ukraine”, July 7, 2021); *Якщо повертатися до теми дезінформації, згадаймо президентство Трампа, коли з'явився дискурс про fake news і fake media* (“Medialab”, November 29, 2021); occasionally – in a transliterated form with different spelling (together with a hyphen), cf.: *Інформаційна містифікація, фальшиві новини, дезінформація, маніпулювання фактами, промивка мізків, фейк-нюз* (“Interfax-Ukraine”, July 7, 2021); *Фейк-нюз від SpaceX: компанію викрили на публікації неправдивих космічних знімків* (universemagazine.com, February 14, 2024).

The lexeme **дінфейк** (*deepfake*) is connected with the mentioned realities – a method of synthesizing a person's image, which is based on artificial intelligence. It involves combining some images and videos with others. Today, deepfake technology is often used for the purpose of fraud and deception. Most often, the victims of deepfakes are famous people, in particular, influential politicians and country leaders. Analyzing modern media speech, we note the mostly erroneous spelling of the borrowed lexeme *дінфейк* with the letter *і*, cf.: *Дінфейк: що це таке та як його розпізнати?* (“Osvitioria Media”, July 6, 2024); *Інформаційно-психологічна операція Росії. Що таке дінфейк та як його розпізнати* (“RBK-Ukraine”, March 2, 2022); *Що таке дінфейки та як їх виявити* (“NGL media”, March 7, 2022), while, according to the spelling norms, the transmission of foreign words in the Ukrainian language involves the letter *и*: **дунфейк**. Occasionally we find the use of a non-transliterated form, cf.: *Коли ти сам не свій: Що таке deepfake і як з ним боротися?* (“Ukrinform”, December 11, 2019).

One of the methods of journalistic control is **фактчекінг** (*fact-checking*). It involves checking information for the authenticity of which is doubtful. Unlike English graphics, according to Ukrainian spelling, this compound noun must be written together. Journalists mostly follow these norms in written communication, cf.: *У телеграмі тестують функцію фактчекінгу* (“Detector Media”, May 27, 2024); *Фактчекінг: як поширюються фейки про українських біженців* (dw.com, February 17, 2023); *Фактчекінг для всіх: як прокачати скіли з перевірки інформації?* (“Gluzd”, October 22, 2021).

In the professional mass media discourse, it is common to use the borrowing **бот** (abbreviated from the English *robot*) – a special program that performs any actions automatically or according to a set schedule through the same interfaces). Today, bots mean virtual robots that are Internet users who spread false



information and cause discussions in the comments in order to shake up society, cf.: **Бот** для доносів на сусідів: росіяни вигадали фейк про відключення світла в Україні ("PIK", June 4, 2024); Як розпізнати та боротися з ботами в соцмережах. Інструкція ("Suspilne. News", July 10, 2020); **Боти** на роботі. Як не потрапити під інформаційний вплив (Internet Freedom, January 8, 2020). In the conditions of the Russian-Ukrainian war, the practice of enemy bot users has become widespread, because today they are an element of enemy propaganda, as they spread Russian narratives directed against Ukraine under the so-called "information drops" in the network. Often this foreignism is used in the plural with meanings: ворожі боти, російські боти, кремлівські боти, путінські боти (enemy bots, Russian bots, Kremlin bots, Putin bots), etc., e.g.: **Ворожі боти** активно коментували допис у соцмережі виницького медіа ("Ukrainian Crisis Media Center", August 30, 2023); **Російські боти** в соцмережах звинувачують Україну в теракті під Москвою, – РНБО ("RBC-Ukraine", March 30, 2024); **Справжній патріот та красунчик: кремлівські боти** хвалили Кадирова під постом про кадік ("News N", August 30, 2023); **Путінські боти** готуються провести масштабну інформаційну диверсію, – ГУР МО ("The last bastion", March 4, 2022).

In the conditions of the information war, the derivational activity of the foreign lexeme **бот** has increased, because in medical communication we find such innovations with this anglicism as **чат-бот** (chat-bot), **телеграм-бот**, **ботоферма**, **фактчек-бот** (telegram-bot, botfarm, fact-checking-bot), **ботнет** (botnet), **бот-атака** (bot attack), etc. The derivative **чат-бот** (chatbot) has become the most widespread, e.g.: **Фейкові чат-боти**: як розкутити шахраїв ("Gluzd", August 30, 2022); Росіяни створили у Telegram фейковий **чат-бот** СБУ (Internet Freedom, April 27, 2022); У Telegram створили **чат-бот** для перевірки фейкових новин і російських "вкідів" ("Ukr.net", March 26, 2024). Less commonly used are other names: **Топ-10 найкорисніших українських телеграм-ботів** ("Prometheus", July 10, 2020); **Що таке ботоферма і як це працює?** ("Gvara media", December 2, 2022); **В Україні запустили фактчек-бот** для відстеження фейків ("Ukrinform", March 26, 2022); У США нейтралізували хакерську **ботнет-мережу**, яку контролювала російська розвідка ("Detector Media", February 16, 2024); **Бот-атаки, фейки та поради псевдоюристів: як Росія намагається зірвати мобілізацію в Україні** ("Ukrinform", February 21, 2023).

#### 4 Conclusion

Thus, the study of modern professional communication of media professionals testifies to a powerful lexical interference, in particular, from the English language. The activation of foreignisms in the journalistic style is caused, on the one hand, by extralinguistic factors (democratization of society, liberalization of the literary language, cultural assimilation with English-speaking countries, powerful development of IT technologies, etc.), on the other hand, by its openness and flexibility to foreign language influences. Borrowings are represented by both neutral tokens – mainly journalistic terms, and slang and jargon units, more commonly used in corporate speech. Despite the caution of ecologists about unjustified foreign language introductions, which often displace specific vocabulary from use, anglicisms of the journalistic sphere, mostly transliterated and transcribed and adapted to the norms of the Ukrainian language (we record only orthographic deviations due to their absence in dictionaries), make modern media discourse more diverse, fill it with new realities, expand the Ukrainian language space. The powerful digitalization of the media and the activation of Internet communication tools contribute to the further dynamic penetration of neo-anglicisms into journalists' speech, which differ in the thematic spectrum, stylistic content, and functional parameters.

Prospective in this direction of research are studies with the investigation of other thematic groups of English borrowings in

media activities, in particular, in the structure of journalistic slang, as well as in the names of modern online publications.

#### Literature:

1. Arkhipenko, L. (2019). Integration of the latest anglicisms into the terminology of the economic industry. *Young Scientist*, 2(1), 46–50.
2. Arkhipenko, L. (2005). Foreign lexical borrowings in the Ukrainian language: stages and degrees of adaptation (on the material of anglicisms in the press of the late 20th – early 21st centuries). [PhD dissertation]. Kharkiv.
3. Dyolog, O. S. (2020). Lexical anglicisms as a feature of modern language fashion. *Transcarpathian Philological Studies*, 13(3), 43–47.
4. Fedorets, S. A. (2005). English borrowings in the language of modern Ukrainian advertising: autoref. thesis for obtaining sciences. [PhD dissertation brief]. Kharkiv
5. Feltsan, I. M. (2010). Problems of functioning of English borrowings in the terminology of entertainment tourism. *Scientific Bulletin of Mukachevo State University*, 9(4), 116–120.
6. Fursa, V. M. (2005). *Semantic-grammatical and word-formative development of indeclinable nouns*. Kyiv: Institute of the Ukrainian Language of the National Academy of Sciences of Ukraine.
7. Gurko, O. V. (2012). English borrowings in the language of mass media. *Scientific bulletin of Lesya Ukrainka Volyn National University. Philological sciences*, 22, 39–42.
8. Maistruk, T. (2009). The nominative function of anglicisms of different semantic groups in journalistic style texts. *Scientific Notes of Kirovohrad State Pedagogical University named after Volodymyr Vinnichenko. Series "Philological sciences"*, 81(1), 348–352.
9. Molotkina Yu., Kostusiak N., & Navalna M. (2021). Foreign language terminological vocabulary of information technologies in Ukrainian online publications. *Philological Volyn: text and context. Problems of Text Interpretation*, 31, 187–204.
10. Molotkina, Yu. O. (2018). Functioning of media vocabulary of foreign language origin in modern Ukrainian online publications. *Society. Document. Communication. Series: Philological sciences*, 5, 57–70.
11. Navalna, M. I. (2011). *Dynamics of the Ukrainian lexicon of Ukrainian periodicals of the beginning of the 21st century*. Kyiv: Dmytro Buraga Publishing House.
12. Pavelkiv, K. (2023). The influence of anglicisms on the modern Ukrainian language: spheres of penetration. *Actual Issues of Humanitarian Sciences*, 63(2), 125–130.
13. Pisarenko, M. O., & Polishchuk, P.O. *Spheres of penetration of anglicisms into the Ukrainian language*. <https://ir.lib.vntu.edu.ua/bitstream/handle/123456789/27768/7869>.
14. Popova, N. O. (2005). Structural and semantic features of the latest lexical borrowings from English into the Ukrainian language (90s of the 20th century – the beginning of the 21st century). [PhD dissertation brief]. Zaporizhzhia.
15. Pribluda, L.M. (2024). To the problem of the functioning of anglicisms in the modern Ukrainian language: theoretical aspect. *Folium*, 4, 247–251.
16. Priyma, L. (2020). *Anglicisms in the Ukrainian medical terminology system*. [http://repository.pdmu.edu.ua/bitstream/123456789/15653/1/Anhlytsyzmy\\_v\\_ukrayinky\\_medychnyi\\_terminosystemi.pdf](http://repository.pdmu.edu.ua/bitstream/123456789/15653/1/Anhlytsyzmy_v_ukrayinky_medychnyi_terminosystemi.pdf) (access date: 06/04/2023).
17. Pryma, L. (2020). Grammatical acquisition of anglicisms in the modern Ukrainian language. *Linguistic Studios*, 40(2), 71–80.
18. Rudakova, T. M. (2013). Principles of assimilation of neo-borrowings in the Ukrainian literary language: orthographic adaptation. *Scientific Notes of NSU named after M. Gogol. Philological Sciences*, 1, 129–135.
19. Savina, Yu. O., & Laskava, Yu. V. (2023). Functioning of anglicisms in professional speech. *Scientific Notes of TNU named after V. I. Vernadskyi. Series: Philology. Journalism*, 34(73), 60–65.
20. Shinkar, T. S., Levchenko, T. M., & Chuban T. V. (2022). Functioning of anglicisms in the language of modern Ukrainian

mass media: Linguistic-ecological aspect. *Transcarpathian Philological Studies*, 25(1), 76–89.

21. Shinkar, T. (2019). Actualization of anglicisms in modern media text. *Document. Communication. Society*, 7, 109–122.

22. Stadnii, A. S., & Zozulya, I. E. (2022). Neo-anglicisms in the modern Ukrainian literary language. *Transcarpathian Philological Studies*, 22(2), 29–33.

23. Styshov, O. A. (2003). *Ukrainian vocabulary of the end of the 20th century (based on the language of mass media)*. Kyiv: Publishing House KNLU Center.

24. Varnich, I. I. (2020). English borrowings in the computer terminology of the German and Ukrainian languages. *Lviv Philological Magazine*, 7, 13–18.

25. Zarembuk, Z. (2016). Anglicisms in the Ukrainian language. *Science. Education. Youth*, pp. 163–165.

26. Zubarev, O. (2008). Status of English borrowings in the lexical system of the Ukrainian language. *Volyn Philological: Text and Context*, 6, 434–441.

**Primary Paper Section: A**

**Secondary Paper Section: AI**



## STRUCTURING OF ECONOMIC PROCESSES IN MODERN PROJECT MANAGEMENT BASED ON DESIGN THINKING

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**Abstract:** The article aims at investigation of the role and place of design thinking in modern project management. It is shown how the creative nature of design thinking contributes to structuring economic processes within projects landscape. Design thinking methodology, constituting elements, and vision within project management are outlined. The concept of project economy is considered in frames of the study of modern project management specifics.

**Keywords:** project management; design thinking; applied management; economic processes; integration.

### 1 Introduction

Among the various areas of applied management, project management, which explores the principles, mechanisms, and technologies for managing projects, programs, and portfolios of projects (programs) at various stages of their life cycle, occupies a special place. One can say that the formation and development of project management, based on modern information (digital) and innovative technologies, represents a new phase in the evolution of the management system [12].

The objects of project management are projects, programs, and portfolios of projects (programs). The subject of project management is organizational project structures, project team, project risks, project financing, project cost and quality, project marketing, optimization of project communications, interests of project stakeholders, etc.

The application of project management principles in practice makes it possible to achieve established goals and ensure certain resource savings due to the following [9]:

- Reducing management costs (defining roles, powers and responsibilities; effective use of the matrix structure; general rules of communication; common information space);
- Minimizing the impact of risks (analysis of stakeholders and project risks; response planning and taking into account risks in plans);
- Reducing the scale of rework (clearly defining the goals, results, and boundaries of the project; developing the required number of plans; building an effective control system).

Project management methodology represents an effective tool that allows solving issues of strategic development in a situation of constant changes and sometimes even quite extreme dynamics and turbulence in external and internal environmental conditions [1]. At the same time, economic processes are critically important within the project - in particular, determining resources and their characteristics, assigning resources, estimating costs, estimating budgets, distributing success criteria, etc.

The concept of economic planning and strategy has taken on new meaning in the context of the Project Economy. Financial planning and strategy, which were formerly associated with long-term forecasts and resource allocation, have become critical tools for organizations functioning in a project-centric environment.

Economic planning in the Project Economy is the methodical process of assigning and managing financial resources, both short and long term, to assure project success. To properly fulfill project objectives, it is necessary to anticipate project expenses, income streams, and cash flows, as well as optimize resource use [21].

In contrast, strategy comprises developing and implementing a set of actions and initiatives aimed at attaining the Project Economy's broad business goals. It entails making informed judgments about which initiatives to pursue, prioritizing them, and ensuring that they match with the organization's strategic goals.

The complex landscapes, interweavings and interactions that arise determine the need to search for innovative paradigms in building economic processes within the framework of project management. One of the most well-known and well-proven paradigms is design thinking.

Design thinking is a method that sets itself the task of creative problem solving, and has found its application in various fields, in particular, in project management. This innovative approach can change perceptions and improve processes in project management.

The design field began as a field of practice, with the goal of developing a new product. Design research has moved beyond the study of practical methodologies, tools, and procedures to the study of a style of thinking. The design thinking ideology is about developing solutions that are human-centered and tackle specific problems using a creative, practical, and iterative method. This concept entails thinking beyond the box, gaining a new viewpoint by observing patterns in the circumstance, and solving difficulties at hand. Design thinking refers to both a philosophy and an attitude. It entails viewing design as a process for solving user problems — beginning with empathy and understanding, then working with users to create a product or system that satisfies their requirements.

The reasoning behind design thinking is widely acknowledged to be abductive. Abduction is defined as the logic of possibilities, as opposed to deduction (the logic of necessity) and induction (the logic of probability). The usage of abductive reasoning can be traced back to the characteristics of the problems.

The main focus of design thinking is on empathy for users. This means deeply understanding their needs. Project teams using design thinking create solutions that not only meet real needs, but also anticipate potential needs.

Design thinking encourages creative thinking and the hunt for new ideas. This enables project teams to seek beyond established approaches in order to identify more effective solutions. Innovation becomes a norm rather than an exception in the workplace. The major goal and evaluation criteria of design thinking are to create meaningful solutions. The literature uses phrases like empathy, human-centered, co-creation, and participatory design to demonstrate this. Finally, design is evaluated based on its usefulness in the context (e.g., human, scenario) for which it was created.

Testing ideas quickly is a key aspect of design thinking. This method allows project teams to quickly receive feedback from users in the early stages of development. Using this experience, teams can make adjustments and improve their solutions.

Design thinking requires collaboration and interaction between team members. This creates stronger connections between colleagues, allowing them to better understand each other and collaborate more effectively. This process also creates a more connected and motivated team.

One of the adapted design thinking methodologies, consisting of six stages, each of which can be adjusted to a specific business problem, is presented in Figure 1 below.

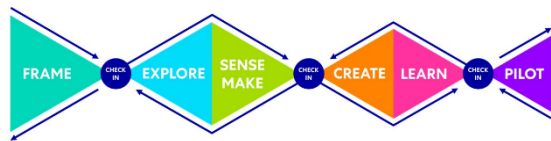


Figure 1. Example of an adapted design thinking methodology [6]

Design thinking is not inherently problem-oriented, but rather solutions-focused and action-oriented to create a preferred future. Design thinking draws on logic, imagination, intuition and systems thinking to explore the possibilities of what could be - and create desired results that benefit the end user (client). According to experts, “design thinking can be described as a discipline that uses design sensibilities and methods to combine human needs, technological feasibility, and a viable business strategy that can be converted into customer value and market opportunities” [16].

Design thinking leads to human-centered innovation. Human-centered innovation begins with developing an understanding of the unmet or unconscious needs of customers or users. “The safest source of new ideas that have true competitive advantage, and therefore higher profits, are unformed customer needs” [19]. Close connection with clients - deep knowledge of clients and their problems - helps uncover these needs.

Design thinking is now visible in a combination of widely used development and project management approaches, with Agile making its way into organizations as a tool to introduce innovation. Design thinking reduces uncertainty and risk in innovation by guiding customers or users through a sequence of prototypes that investigate, test, and enhance a notion. Design thinkers rely on customer insights gleaned from real-world trials, not merely statistical data or marketing research. This allows maximizing the efficiency of economic processes in project management, significantly increasing the cost-effectiveness of the project and its overall success in the plane of customers/audience satisfaction. Thus, the topic of using design thinking in structuring economic processes occupies one of the important places in today’s discourse of project economics and project management.

## 2 Materials and Methods

The theoretical basis of the study was the works of scientists on creative thinking, design thinking, new product development, and project management.

To implement the research objectives, the following methods were used: a) review and analytical study of the literature; b) general scientific methods: analysis and synthesis, comparison, induction and deduction.

## 3 Results and Discussion

In its 2020 Pulse of the Profession® report [14], the Project Management Institute (PMI) described the project economy as a “fundamental paradigm shift” for enterprises. Essentially, it entails tackling most important difficulties that a corporation faces through initiatives. These can include everything from operational adjustments to market evaluations.

Project managers in the project economy must lead motivated, multidisciplinary teams that span many organizations. PMI emphasized that firms must use these teams to encourage change or risk “not just treading water but sinking”.

Projects are no longer treated as an afterthought to “real” organizational operations. Instead, initiatives have become the driving force behind productivity, innovation, and growth.

According to PMI, team members come from a variety of backgrounds and bring “financial and social value”.

Projects have gradually gained traction in the workplace as a crucial generator of innovation, growth, and success. To some extent, the rise of the project economy indicates the end of job classifications. The Project Management Institute (PMI) predicted that the global value of project-related activities would reach USD 20 trillion by 2027, creating numerous jobs for 88 million people. Even more interestingly, these predictions were generated before governments began spending on pandemic recovery projects, implying that the project economy is here to stay, with enormous economic and societal benefits [1].

Economics, as a discipline, asks and answers the question “why”. It is used to explain phenomena, particularly human behavior, whereas engineering focuses on “how”. The question arises: Does project management fall under economics or engineering? The project manager’s primary responsibility is to ensure that the project starts and finishes on time, within budget, and according to specifications. As a result, project management invariably entails the optimization of project processes, which falls under industrial engineering or operation management. However, economic theories are necessary since project management invariably involves human decisions and actions. As a result, we propose that project management be defined as a profession that includes both economics and engineering, and design thinking is an effective instrument for achieving this symbiotic balance.

In PMBoK, working with documentation makes processes more structured, and there are ready-made processes that one can simply adapt to specific project. However, in practical projects, a clearly defined methodology and structured PMBoK processes in themselves do not guarantee the success of the project - flexibility is required, taking into account changing conditions, a highly dynamic environment, which is especially evident in the VUCA- and BANI-world. Economic processes play a critical role in this case, since deviations in budget and resource planning and the current situation can lead to the collapse of the project.

Furthermore, every R&D process is creative in nature. By definition, an R&D project is a journey to explore the unknown and solve issues that have no obvious solutions. This means that there is frequently no clear path, and scientists with open and creative minds are generally in the best position to create breakthroughs [15].

Solving ill-defined and difficult problems is a prevalent aspect of project and project management. When a project’s output is intended to be distinctive and its success is primarily reliant on the end user’s acceptance, design thinking can be an excellent methodology to adopt.

Design thinking tools, methods, strategies, and activities, such as visualization/materialization techniques, can promote creative processes by assisting design stakeholders in systematically alternating divergent and convergent thinking. Rather than accepting the problem as is, designers investigate the problem and its context, and may reinterpret or restructure the problem to arrive at a specific framing of the problem that indicates a path to a solution. It is so solution-focused thinking, as opposed to traditional problem-solving methodologies. It is further distinguished by the use of abductive reasoning: designers infer alternative solutions based on accessible problem knowledge, their experience, and nondeductive modes of thinking such as analogies [17].

From a methodological point of view, design thinking refers to a heuristic technique for solving problems in non-standard conditions. Their main features are cyclicity, nonlinearity, and one might say chaotic approaches to the formation and planning of new ideas. From a design perspective, this is how innovative thinkers approach constraints.

In project management, design thinking begins with a clear definition of the problem and an understanding of stakeholders' objectives and goals. It encourages project managers to actively listen, empathize, and monitor user behavior in order to gain insights that will move the project forward. Design thinking also promotes ideation and brainstorming sessions to generate a wide range of unique ideas. These ideas are then examined and improved to determine the most promising solutions. Rapid prototyping and testing are essential components of design thinking, enabling project managers to iterate and enhance their approach in response to user feedback. By incorporating design thinking ideas into project management, teams may improve customer satisfaction, increase innovation, and reduce the chance of costly mistakes. It promotes a collaborative and iterative process that values open-mindedness and flexibility, resulting in more effective projects and satisfied stakeholders [23].

Canfield and Bernades [4] proposed a framework for combining Project Management (PM) aspects with Design Thinking (DT) to reduce the simplicity and superficiality of DT implementation. Their research employs an exploratory descriptive approach based on design science research (DSR) and a qualitative method, beginning with an email interview and progressing through an online discussion forum, a product development workshop, expert interviews, an online framework development workshop, and finally a framework validation workshop. The ultimate product is the Design Thinking Project Management Framework, which includes both PM and DT components.

The project manager accepts permanent and formal responsibility for ensuring the best possible outcome for a DT project. The inclusion of management concerns like as integration, scope, schedule, cost, quality, resource, communication, risk, procurement, and stakeholder will reduce the superficiality of DT while increasing trust and credibility as new phases and management tools are introduced throughout the process. Figure 2 shows the relationship between the DT and PM ideas.

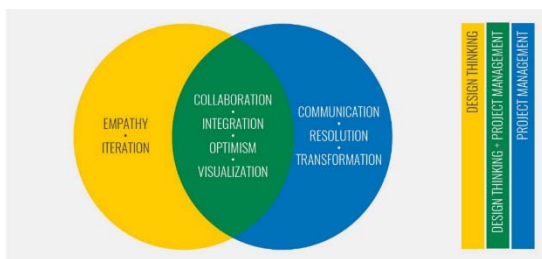


Figure 2. Relationship between the principles of DT and PM [4]

Phases of the framework proposed by Canfield and Bernades are given in Figure 3.

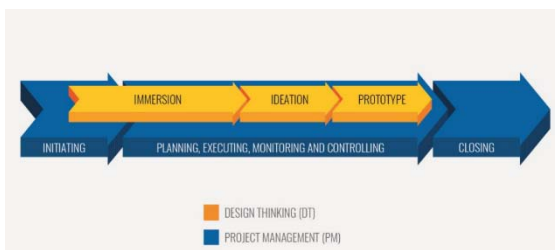


Figure 3. Phases of Design Thinking Project Management framework [4]

Today, Design Thinking is considered as a complicated thinking process for creating new realities, indicating the incorporation of design culture and methodology into domains such as corporate innovation [20]. It is not a fixed set of processes, but rather "a

human-centered, creative, iterative, and practical approach to discovering novel ideas and solutions" [7].

Brown stated in 2009 that design thinking combines three aspects. It originates from people' desire for what is technologically attainable, humanly desired, and an economically effective business strategy [3]. These three are critical in determining how to address the problem and develop the solution (refer to Figure 4).

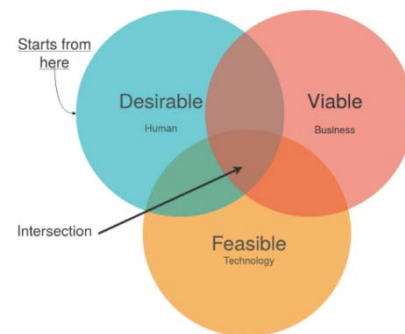


Figure 4. Three elements of design thinking [10]

The capacity to create frames and reframe a difficult issue in novel and intriguing ways is commonly regarded as a core feature of design thinking [13]. When creating new frames, professional designers engage in a sophisticated analysis process that is very similar to phenomenological techniques of analysis, in which a complicated situation is examined in terms of "themes" [5]. In this strategy, a "theme" is the sensation of focus and significance. Themes are not readily identified in either the problem or solution space. The process of distilling themes is referred to as insightful invention, discovery, and revelation. These "themes" serve as catalysts for the development of new frames, allowing the primary problem to be tackled in a novel and intriguing manner. This collection of clues is a purposeful method used by designers. It may appear to be an informal activity to an outsider, and the terminology designers use is often ambiguous: they talk about "getting close to a situation", the necessity of "richness" of the issue area, as well as the need of "getting first-hand experience" of the problem situation. This idea allows for structuring carrying out.

The concept of economic planning and strategy has taken on new meaning in the context of the Project Economy. Financial planning and strategy, which were formerly associated with long-term forecasts and resource allocation, have become critical tools for organizations functioning in a project-centric environment.

Economic planning in the Project Economy is the methodical process of assigning and managing financial resources, both short and long term, to assure project success. To properly fulfill project objectives, it is necessary to anticipate project expenses, income streams, and cash flows, as well as optimize resource use. In contrast, strategy comprises developing and implementing a set of actions and initiatives aimed at attaining the Project Economy's broad business goals. It entails making informed judgments about which initiatives to pursue, prioritizing them, and ensuring that they match with the organization's strategic goals. Economic planning and strategy are critical in the Project Economy, as initiatives produce corporate value, for a variety of reasons [11].

- Resource Optimization: Efficient resource allocation is critical in a project-centric context where resources are frequently limited. Economic planning enables firms to deploy resources where they are most required, eliminating waste and achieving the highest project ROI.
- Risk Mitigation: Economic planning helps organizations identify potential project financial hazards. With a solid financial strategy in place, organizations may address these risks proactively and apply mitigation methods.

- Decision-Making: Strategy assists organizations in determining which projects to pursue and prioritize. It ensures that project portfolios are consistent with the company's goals and competitive situation.
- Adaptability: In the Project Economy, flexibility is essential. Economic planning and strategy enable organizations to adapt their financial plans and project portfolios in response to changing market conditions, new opportunities, or unexpected problems.

Managing economic planning and strategy in the Project Economy requires an organized approach. 1) Data-driven analysis: using previous project data, market trends, and financial forecasts to guide economic planning and strategy development; 2) Continuous monitoring: Regular monitoring of project performance and financial KPIs to maintain consistency with the specified strategy; adjustments to plans as needed. 3) Collaboration: Including cross-functional teams in planning and strategy development to guarantee a comprehensive perspective and buy-in from all stakeholders [8].

Recently, in an attempt to establish an appropriate problem-solving methodology as critical to project success, scientists have considered combining three popular approaches: design thinking, agile, and design sprint [22]. Though design thinking may not be as adaptable as agile, it is not a rigid paradigm either. Instead, it moves away from a rigid traditional hegemonic structure and toward a more creative approach [8]. As a result, it is not required to follow a precise pattern and define what must be done and set in order to complete the task. Instead, design thinking alters the approach to the problem by emphasizing people as the key to success and encouraging creativity. The goal is to collect as much information as possible in the early stages. That is why divergence occurs in the early stages. Nonetheless, design thinking is slower to generate ideas since it prefers divergence during the brainstorming phase [2].

While the three approaches can complement one another, design thinking is typically used early in projects to generate ideas, followed by a design sprint to create a prototype, and agile at the end to develop the final product. However, each strategy has its own advantages and can be used in isolation from one another.

While design thinking is particularly effective at promoting economic growth and customer happiness, its impact goes well beyond the commercial world. This unique technique is increasingly being used to address some of society's most urgent issues, including environmental degradation and social injustices. Here are a few ways in which design thinking is driving positive change [18].

1. Addressing climate change and environmental sustainability: Design thinking enables communities to create innovative ways to reduce their environmental imprint. Examples include developing energy-efficient housing projects, promoting sustainable agriculture methods, and developing novel waste management technologies.
2. Promoting inclusion and social equity: Design thinking, by focusing on empathy and user requirements, can help bridge divides and build solutions that serve various groups. Examples include producing accessible technologies for persons with impairments, designing inclusive and welcoming public spaces for everybody, and implementing educational programs to meet the needs of marginalized communities.
3. Improving healthcare and well-being: By prioritizing patient-centered experiences, design thinking has the potential to transform healthcare delivery. This could include producing user-friendly medical technologies, building hospital environments that promote healing and comfort, and devising novel treatments to chronic diseases and mental health issues.
4. Empowering communities and fostering collaboration: Design thinking promotes participatory problem-solving methods, allowing communities to identify their own

concerns and co-create solutions with designers and experts. This promotes a sense of ownership and agency, resulting in more durable and successful outcomes.

5. Creating a more resilient future. Communities that use design thinking can better prepare for and adapt to a changing reality. This includes finding solutions to natural disasters, building resilient infrastructure, and fostering social solidarity in the face of adversity.

Design thinking has enormous potential for generating positive societal effect, and its applications are constantly evolving. By adopting this human-centered approach, we can create a future in which innovation benefits not only economic growth but also the well-being of people and the world.

Economic processes in project management in this multi-stakeholder environment are complicated and non-linear. As a result, their strutting and management require nonlinear technologies. Currently, design thinking appears to be one of the greatest possibilities.

#### Literature:

1. Aliu, J., Oke, A., Kineber, A., Ebekozien, A. (2023). Towards a new paradigm of project management: A bibliometric review. *Sustainability*, 15(3), 9967.
2. Araújo, C., Santos, I., Canedo, E., Araújo, A. (2019). Design thinking vs. design sprint: A comparative study. In: A. Marcus, & W. Wang (Eds.). *Design, User Experience, and Usability. Design Philosophy and Theory. HCI. 2019, Lecture Notes in Computer Science*, Springer, Cham, Vol. 11583, pp.291-306.
3. Brown, T. (2009). *Change by design: How design thinking transforms organizations and inspires innovation* (1st ed.). HarperCollins.
4. Canfield, D., & Bernandes, M. (2021). Design Thinking Project Management framework. *Estudos em Design* 29(3), 66-86.
5. Correio, L., & Fleury, A. (2019). Design sprint vs. design thinking: a comparative analysis. *Gepros: Gestão Da Produção, Operações e Sistemas*, 14(5), 23-47.
6. Curedale, R. (2019). *Design thinking process & methods*. Design Community College Inc.
7. Dijksterhuis, E., & Slivius, G. (2016). The design thinking approach to projects. *PM World Journal*, V(VI), 1-15.
8. Ewin, N., Luck, J., Chugh, R., Jarvis, J. (2017). Rethinking project management education: A humanistic approach based on design thinking. *Procedia Computer Science*, 121, 503-510.
9. Heagney, J. (2022). *Fundamentals of project management*. HarperCollins Leadership.
10. IDEO (2015) *The field guide to human-centered design*. Design Kit, IDEO.
11. Lippe, S., & Vom Brocke, J. (2016). Situational project management for collaborative research projects. *Project Management Journal*, 47(1), 76-96.
12. Moria, A. (2023). *Mastering the art of project management: Strategies for success*. GRIN Verlag.
13. Paton, B., & Dorst, K. (2011). Briefing and reframing: A situated practice. *Design Studies*, 32, 573-587.
14. PMI (2020). Ahead of the curve: Forging a future-focused culture. [https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pmi-pulse-2020-final.pdf?v=2a5fedd3-671a-44e1-9582-c31001b37b61&sc\\_lang\\_temp=en](https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pmi-pulse-2020-final.pdf?v=2a5fedd3-671a-44e1-9582-c31001b37b61&sc_lang_temp=en)
15. Santos, J., & Brandao, A. (2022). The R&D canvas: A design thinking tool for the management of R&D projects. *The Journal of Research Administration*, 53(1), 62-92.
16. Stickdorn, M., & Schneider, J. (2012). *This is service design thinking: Basics, tools, cases*. Wiley.
17. Szasz, O. (2015). Design Thinking as an Indication of a Paradigm Shift. In: *Designing Business and Management*, (pp.105). Bloomsbury Publishing,
18. Tillberg-Webb, H., & Collier, N. (2018). Using the design thinking cycle to tell the story of innovative learning spaces. in B. Hokanson, G. Clinton, & K. Kaminski (Eds.): *Educational Technology and Narrative* (pp.141-153). Springer.

19. Tomar, Sh. (2023). Design thinking on project management for innovation. *International Journal of Trend in Scientific Research and Development*, 7(1), 618-621.
20. Tschimmel, K. (2012). Design thinking as an effective toolkit for innovation. *Proceedings of ISPIM Conferences*, 23.
21. Villa, A. (2023, October 23). Economic planning and strategy in the project economy. *LinkedIn*. <https://www.linkedin.com/pulse/economic-planning-strategy-project-economy-alejandro-villa-pmp/>
22. Wangsa, K., Chugh, R., Karim, Sh., Sandu, R. (2022). A comparative study between design thinking, agile, and design sprint methodologies. *International Journal of Agile Systems and Management*, 15(2), 225-242.
23. Yung, P. (2015). A new institutional economic theory of project management. *Journal of Business Economics and Management*, 16(1), 228-243.

**Primary Paper Section: A**

**Secondary Paper Section: AE**

## THE MYTHOLOGICAL BASIS OF POETIC METAPHOR

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**Abstract:** The article highlights the connections between poetic metaphors found in Ukrainian poetic texts and myths. It emphasizes that metaphor serves as both a means and a result of transforming myth into familiar forms of consciousness. Metaphors of mythological origin are characterized as an integral element of the poetic text. The main focus is made on metaphors that have connections with the myths of Slavic peoples. It is demonstrated that metaphors of mythological origin form a substratum layer of Ukrainian poetry. A classification of the recorded metaphors by their source of origin is proposed. The following types of metaphors are distinguished and analyzed: (1) metaphors related to myths about the earth, (2) metaphors arising from astral-themed myths, (3) metaphors reflecting mythological representations of the plant and animal world (totemic myths), and (4) metaphors formed on the basis of myths about humans, their life and death (anthropogenic myths). It is emphasized that metaphors of mythological origin, used in the poetic text, ensure the continuity of the literary tradition while simultaneously being enriched by the realities of the new environment, stimulating the formation of new meanings.

**Keywords:** metaphor; myth; text; poetic text; image; imagery; stylistics.

### 1 Introduction

The interrelationship between metaphor and myth is one of the most complex problems in contemporary humanities. The complexity lies not only in the ambiguity of interpreting the analyzed phenomena but also in the fact that understanding their interaction delves into the even more intricate issue of the relationship between language and thought. In analyzing the triad of language – metaphor – myth, researchers have considered metaphor in connection with mythological consciousness [12], as a linguistic phenomenon [16], argued that the metaphorical nature of language gives rise to myth [12; 15], and conversely, that language has inherited metaphors from myth [9; 17; 18; 21]. Despite the differences, and sometimes even oppositions in viewpoints, most scholars recognize metaphor as a linking element between language and myth.

In contemporary science, it has become axiomatic that metaphor is ontologically connected with both language and thought – humans not only express their thoughts through metaphors but also think with them. It has been proven that metaphor is an expression of the unique feature of human linguistic thinking to notice similarities between different objects and their classes. This is a key property in the processes of world cognition, since acquiring knowledge about the environment involves identifying similarities between the familiar and the unfamiliar, in order to understand the unknown through the known. This mechanism constitutes the essence of metaphor as a tool for transforming the cognizable into comprehensible forms. The results of cognitive activity can be preserved for a long time in the form of metaphors, which, on the one hand, reflect the specifics of conceptualizing reality within a particular worldview system, and on the other, define the specifics of further cognition.

A part of the metaphors in contemporary Ukrainian language, which belongs to traditional figurative means, is genetically linked to myth, although this connection is not always obvious.

The aim of the research is to identify and substantiate the mythological basis of metaphors in Ukrainian poetry, and to clarify their stylistic functions in poetic texts.

### 2 Literature review

In most studies, the problem of metaphor is considered in connection with logical thinking, which operates with words and associated concepts that are relatively autonomous in space and time. In mythological thinking, identification occurs at the level of the objects themselves, and not at the level of names [1; 16]. The reason for perceiving a word not as a conditional designation of some object, but as part of it was the syncretism of the world's reflection in the human psyche. In the early stages of human development, there was no dualism between mythological and logical thinking, as indicated by E. Cassirer and other researchers. Myth for the primitive person was reality, and what modern people perceive as imagery was the perception of the world in the form of equivalences and repetitions. Mythological identification implies the transformation of the object itself in a specific space and time [1]. Metaphor, however, is always oriented towards the object because in it the main subject (the signified) retains its objectivity, while the auxiliary subject (the signifier; serving for comparison) acquires a signifying meaning. Metaphor as a concept did not arise in the process of mythological cognition but emerged as a result of the scientific understanding of linguistic phenomena; it is a natural translation of myth into familiar forms of human consciousness [1]. In other words, it is a term used to denote the real historical features of human speech-thinking activity.

In myths, general ideas about the surrounding world appear in a concrete-sensory, figurative form. This method of reflecting the surrounding world is also characteristic of art, including verbal art, which has led to the widespread use of metaphors in literary works. The common feature of myth and artistic literature served as the basis for their convergence and even identification [3; 4]. However, many researchers refute this notion [1; 14; 16]. Poetry, like all artistic literature, although genetically related to myth, did not arise simultaneously with it. It is a means of preserving and transforming mythological concepts over time, which appeared in the later stages of societal development when the form of expression of content became significant [1; 16].

The difference between myth and poetry, according to researchers, lies in the mode of thinking. O. Potebnia emphasized that in myth, “the image is considered objective and, therefore, completely transferred to the meaning and serves as the basis for further conclusions about the properties of the signified”, the allegory of the image exists but is not realized by the subject [16]. One of the important features of poetry that distinguishes it from myth is the conscious use by the artist of different variants of form. In myths, unlike poetry, there are uncontrolled variations in interpretations [13; 16].

Myths, as it is known, originated and functioned in archaic cultures, but they did not completely disappear later. Mythologism, both as an artistic tool and as a related worldview, is a characteristic phenomenon of 20th-century literature and continues in 21st-century literature. In this regard, the widespread use of metaphors of mythological origin in Ukrainian poetry of this period seems quite natural. However, they are rarely a means of mythologization; more often, they are figurative units that do not have an obvious connection with myth but to some extent express the peculiarities of Ukrainian perception of the world.

With the advent of postmodernism, the idea gained popularity that any manifestation of myth reflects the worldview of the era and has certain cultural significance, as myth does not lose the properties of its originally perfect form but changes under the influence of external factors.

The mythological beliefs of Ukrainians are reflected in folk customs, rituals, beliefs, and so on, which, although having undergone significant transformations over time, have still been preserved to this day. According to V. Davydiuk, “their



worldview basis may have much in common with similar examples from other tribes and peoples.

However, this commonality is caused not so much by cultural borrowings but rather by the commonality of ethnocultural development" [5].

In Ukrainian folklore and artistic literature, mythologism is manifested in images, plots, motifs, and more. Mythological content sometimes emerges in figurative means, particularly metaphors, similes, epithets, and it may not be consciously recognized by either the author or the reader. Identifying metaphors of mythological origin requires the application of appropriate research methods and techniques.

### 3 Materials and Methods

The poetic text is the primary sphere for the creation and functioning of metaphor. The emergence of poetry is driven by the development of human thought and worldview, during which mythological personification of natural phenomena transformed into poetic representation of the surrounding world. Metaphor became both the means and the result of transforming myth into familiar forms of consciousness.

Given this, the research sources were texts of Ukrainian poetry from the 20th to early 21st centuries, recorded in various authorial collections, as well as V. Zhaivoronok's dictionary "Signs of Ukrainian Ethnoculture" (2006) and V. Voitovych's "Ukrainian Mythology" (2014). The focus was on metaphors that have connections with the myths of Slavic peoples.

According to the specifics of the research subject, various methods and techniques were applied:

*the technique of continuous selection of metaphors of mythological origin* to form a corpus of contexts for further analysis;

*metaphorical modeling* for the formalized and simplified representation of basic models and for studying the processes of creating derivative metaphors, the main directions, and ways of developing metaphorical models in the analyzed texts;

*comparative-typological method* using the technique of establishing tertium comparationis (basis of comparison) – the functional-semantic means of expressing metaphor;

*the technique of comparative bilateral, semasiological interpretation*, subordinated to *the methodology of parallel research*, which consists of the step-by-step use of:

- 1) *linguistic description*, including *techniques of primary and secondary segmentation and internal interpretation*, aimed at highlighting and systematizing the empirical research base – the semantic-grammatical means of expressing metaphor;
- 2) *conceptual-interpretative analysis* of metaphorical models, which involves considering the macro- and microcontext to interpret their content.

### 4 Results and Discussion

Myths reflect the earliest human perceptions of the surrounding world, cosmos and chaos, space and time, the mystery of birth and death, human destiny, orientation in the natural environment, and coexistence with other people, among others. These perceptions are succinctly embodied in metaphors formed through the condensation of mythological content.

Metaphors of mythological origin, recorded in poetic texts, exhibit heterogeneity along several parameters.

The main ones are: the heterogeneity of (1) content and (2) form, (3) contextual conditionality of meaning, and (4) functions performed in the texts. In accordance with the aim and objectives of the study, a classification of metaphors by their source of origin has been developed, distinguishing the following: (1)

metaphors related to myths about the earth, (2) metaphors arising from myths with astral themes, (3) metaphors reflecting mythological perceptions of the plant and animal world (totemic myths), and (4) metaphors formed based on myths about humans, their life, and death (anthropogenic myths) (see Figure 1).

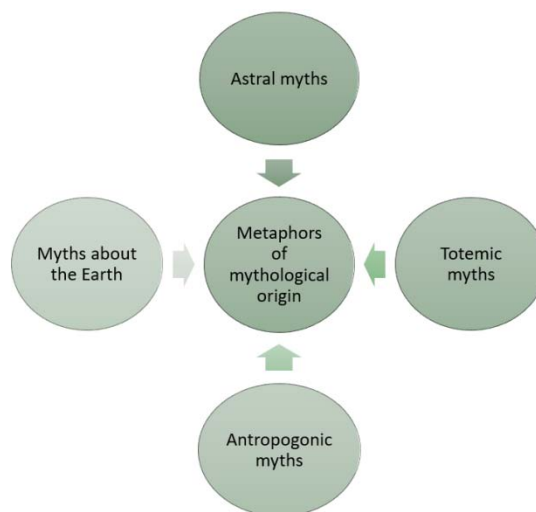


Figure 1. Main Sources of Metaphors of Mythological Origin

The proposed classification covers the most numerous, yet semantically and structurally heterogeneous groups of metaphors found in Ukrainian poetic texts. Within each class, several subgroups of metaphors are distinguished, each united by a fundamental metaphorical model. The most homogeneous in terms of motivational basis are the metaphors reflecting mythological conceptions of the earth, which are therefore highlighted in a separate class.

#### **Metaphors that relate to myths about the earth**

In archaic cultures, there was a wealth of tribal beliefs and cults open to mutual influences, but a common element among them was the cult of the Mother Goddess. In pagan Rus, her variants included Mother Earth and Mother Nature, associated with the chthonic cults of matriarchal religions. This ancient belief is invoked by the Ukrainian poet B.I. Antonych, a "life-loving pagan," who writes: "You worship only the earth, the earth of a hundred colors, as if this dream!" These words continue the Ukrainian poetic tradition, reflected in the lines of the Ukrainian literature classic I. Franko: "Earth, my all-fruitful mother, // Powers that dwell in your deep, // A drop to stand stronger in battle, // Grant me too!"

Gradually, the cult of the Earth Mother was replaced by the Uranian cult of the gods of patriarchal religions, which later gave rise to the monotheism of the Christian church, ultimately rejecting the worship of ancient deities of life and fertility. However, the echo of pre-Christian beliefs is seen in the metaphorical model of *woman, mother* → *earth*. Over time, the connection with pagan culture weakened, but the deep respect Ukrainians hold for the earth did not vanish. The traditional epithet of "holy" in Ukrainian literature, though not associated with the Mother Goddess cult, still signifies a high reverence for the earth. This metaphorical model is highly productive in Ukrainian literature. Through the personified image of the earth, according to S. Yermolenko, "the philosophy of Ukrainian vitalism is manifested" [22]. In Ukrainian poetry, this model is predominantly realized as a binary metaphor of *mother earth*. The meaning of the basic metaphor in individual linguistic contexts is refreshed through its combination with other lexical and grammatical elements of the text, which develop new meanings and perform complex functions of figurative expression. For example, the addition of an adjectival component to the structure of the metaphor clarifies and specifies its content, and, according to the connotation of the

adjective, enriches it with national and cultural color: “*Oh you, earth, farmer’s mother, // Girded with blue rivers, // In a green high headdress, // In a lacy Chinese garment, // In a skirt adorned with bright flowers*” (M. Rylskiy).

As a result of the interaction between the individual and the collective, we examine metaphors where the feminine image of the earth is interpreted as *bride-earth*, *girl-earth*, and is enriched with additional associative and imagery details: “*And the earth – a bride in milky bloom*” (E. Malaniuk); “*The earth, spinning a hula-hoop of orbits, // Must still be quite a girl to him*” (L. Kostenko).

In poetic language, the primary subject of the metaphorical transfer of *woman, mother* → *earth* is often the Homeland or Ukraine. For example, the personification of Ukraine as a woman, mother, with all the dramatic aspects of the female fate, is widely represented in the poems of P. Tychyna such as “The Sorrowful Mother,” “My Madonna”, and others. This metaphor is also present in the collection “Plow”. Scholar M. Ilnytskyi emphasizes: “It should be noted that Soviet literary criticism artificially attributed Tychyna’s collection ‘Plow’ to the Bolshevik revolution. In reality, it was a book about our, about the national revolution, in which Ukraine sought to raise its own Moses, its own Messiah, but... ‘could not endure the agony’. It is worth reading, once again and impartially, at least the cycle ‘My Madonna’ – and in the image of the ‘sinful’, ‘naked’ maiden will appear the traits of the later Malaniuk’s Earth Madonna” [10].

In the works of E. Malaniuk, the image of the native land achieves a profound artistic and philosophical interpretation. For the poet, the land is not a *mother* but a *beloved* or a *harlot*, *sacred* or *witch*. The artist expresses an ambivalent feeling of love and hatred towards his native land. Driven by the idea of Ukrainian statehood, E. Malaniuk contrasts himself and his lyrical hero with the entire nation, continuing a cultural tradition initiated by T. Shevchenko, P. Kulish, and I. Franko. In the monologues addressed to the personified image of the native land, infused with a feminine principle, love and hatred, curses and hymns intertwine. The rebellious nature of the lyrical hero in E. Malaniuk’s poetry is manifested through confrontation, conflict, denial, and rejection. This rebellion against a harsh reality engenders a profound duality in the personification of the native land and the emotional source of the terrible curse directed towards it. It is noteworthy that the modern negative emotional connotation of the witch image, with which E. Malaniuk associates his native land, has been shaped by the influence of Christianity, which was intolerant of pagan beliefs. In pre-Christian mythology, a witch is not a servant of the devil but a being that maintains the balance between light and darkness. The word “*vidma*” (*witch*) is related to “*vidaty*” (*wit*), which is an iterative form of the Proto-Slavic “*vsty*” (“to know”), derived from the Indo-European \**vēd̥ti* (\**vēd̥-* “knowledge”). This is also indicated by the Polish researcher A. Gejsthor: “The sorceress or witch (Polish: *wiedźma*, Old Polish: *wiedma*, meaning ‘one who knows’) practices magic and divination. This phenomenon and this lexical root originate not from Proto-Slavic but from Proto-Indo-European” [8].

According to ancient beliefs, the earth gives birth to people and takes them back into its womb after death [8]. “The Mother is the dominant figure where magical transformation and resurrection occur, as well as in the underworld with its inhabitants. In a negative sense, the archetype of the Mother can signify something mysterious, enigmatic, dark, an abyss, the world of the dead, everything that engulfs, tempts, and poisons, that which fills one with horror and is inevitable like fate. <...> There are three most important aspects of the Mother: Her fertile and benevolent Deity, Her orgiastic emotionality, and Her Stygian depths” [11]. In this context, the mythological nature of the given metaphors is undeniable: *It has always been this way – and still is // The earth caresses its children* (P. Filipovych); *and, hey, in Bavaria by the umbilical cord // the earth tugged at me just now* (T. Osmachka); *I am strong in body, pure in spirit: // In*

*me flows the blood of my land* (D. Pavlychko); *To enter into the mother’s womb again // and be reborn someday* (I. Kalynets).

#### Metaphors arising from myths of astral themes

The poetic representation of the sky and celestial bodies in Ukrainian literature is significantly influenced by folkloric tradition, formed on East Slavic mythology.

A distinct subject of depiction in Ukrainian poetry is the sky. In mythology, the Sky is closely but controversially connected with the Earth. Among other beliefs, there was the notion that the Sky and the Earth are married [20; 23]. This logically aligns with the interpretation of *rain* as an act of union between *the Sky* (male) and *the Earth* (female). Rain “in ancient mythology is explained as the result of the union of the sky with the earth (specifically through the rainbow – ‘into the paradise arch’ – water rises to the clouds, and from there falls as rain)” [23]. In contemporary Ukrainian poetry, we find extended metaphors that partially realize this meaning: “*Open your hot bosom, // Mother Earth! The rain will cool you. // It will revive and fertilize, – // And with wheat and barley // With a lush green wave // It will cheer the white villages*” (M. Rylskiy); “*The tropical downpour of love rages – // the wild marriage of earth and sky*” (L. Kostenko). Let us note that this is one of the numerous images of rain in Ukrainian poetry. Mostly, in the analyzed texts, the metaphors of rain are individually authorial and do not have typical realizations. At the same time, the most frequent technique of their creation is personification.

Like other images, *the sky* in Slavic mythology is interpreted in various ways. The models that reflect ancient perceptions are as follows: *water (sea, ocean, lake)* → *sky*; *canvas, fabric* → *sky*; *ceiling* → *sky*; *tent* → *sky*; *bowl* → *sky*. Each of these models served as a basis for creating numerous individual-author metaphors. The most frequent analogy in Ukrainian poetry, according to our observations, is the comparison of the sky with the water element. The motivational basis of this metaphor is the external similarity in terms of spatial (boundless space) and color characteristics. In metaphors, this meaning develops with the weakening of the spatial element and the strengthening of the boundlessness. The sky, analogized with the sea (ocean), has led to the action projection of *flying* → *swimming*. This conceptual metaphor is widely expanded in the scientific and technical sphere (aviation, aircraft, air fleet, spacecraft, spaceport, etc.).

Metaphors that arose based on mythological ideas about the sun, moon, and stars are also among the most frequently used ones in Ukrainian poetry texts and form one of the largest groups. These include, in particular, metaphors formed based on the following models: *eye* → *sun*, *ruler* → *sun*, *mother* → *sun*, *honey* → *sun*, *wheel* → *sun*; *eyes* → *stars*, *eye* → *moon*, *shepherd* → *moon*, *head* → *moon*, etc.

Ancient Ukrainians, like many other peoples, analogized the night celestial bodies (*moon and stars*) with *the eyes of the sky* [20; 23], believing that these “inhabitants of the heavenly vault and representatives of the sacred light-bearing element for pagans” look down on people from the sky [20]. These associations are reflected in the metaphorical model *eye* → *celestial body*, which is widely realized in the language of Ukrainian poetry: “*The moon squints its yellow eye*” (V. Svidzinskyi); “*And the stars look deeply into the eyes*” (V. Svidzinskyi); “*From blond clouds, from silk drapes // The moon looked at the stubble and field*” (M. Zerov); “*The transparent eyes of the sky*” (V. Sosiura); “*The big eye of the moon*” (E. Malaniuk); “*The eyes of the sky*” (Y. Tarnawskiy); “*The sky looks with its eyes, and the earth // sighs in the wind*” (A. Malyshko); “*The sky looked through the star*” (M. Vingranovskiy). These are poetic images that are merely linked by origin to mythology, but over time this connection has weakened or been completely lost.

*The sun*, which observes earthly life from above, was also imagined as the eye of God in pagan-Christian mythology. The echo of these ancient beliefs is recorded in metaphors: “*Under the sun of Crimea, under its dazzling eye // Intoxicating wine*

flows like a sacrificial stream" (M. Zerov), "The sun fades. From its bright eye // Over the wide fields, over the grove // Streams of crimson light pour" (B. Lepkyi), "And the sun shines with a mysterious eye" (L. Kostenko).

The ancient poetic tradition of depicting the Sun as a deity is also based on the pre-Christian beliefs of the Slavs. According to V. Zhaivoronok, "in pre-Christian times, the Slavs worshiped natural elements – the sun, fire, water; a solar worldview dominated, as ancient people saw the sun as a powerful source of heat and light, upon which their lives and well-being completely depended; the changing seasons were associated with a god who dies and resurrects; the main holidays were dedicated to the sun..." [23]. The aesthetics of sun worship are widely manifested in P. Tychyna's poem "Golden Clamor": "the ancestors offer sacrifices to the sun – // and hence the golden clamor" (P. Tychyna), as well as in the poetic works of his contemporaries and successors: "here descends the white God – the sun" (B.-I. Antonych), "I pray to you, sun, god of fiery clusters" (T. Osmachka), among others. The intertwining of pagan and Christian beliefs is reflected in the metaphor of *the sun golden communion* (B.-I. Antonych), where the sun and its light are analogized with the main Christian sacraments – Holy Communion.

The poetic metaphor "*honey of the sun*" also has a mythological basis, though its meaning is somewhat ambiguous. Narrowly, this metaphor can denote sunlight, and more broadly, the warm air heated by the sun on a summer day. The origin of this metaphor lies in the myth "The Star, the Keys, the Dew, and the Honey", which was studied by O. Potebnia. The essence of the myth is that "The Star unlocks the heavenly gates with a key at dawn and releases the Sun into the sky. The Sun chases the beautiful girl Star, who flees and becomes a well. Holy dew falls to the earth, fertilizing it. Bees drink the dew and bring sweet honey. Life is born" [20]. In the process of transforming the myth into a binary metaphorical construction, both metaphorical and metonymic projections emerged. An important distinction between the myth and the metaphor derived from it is that the myth tells about the birth of life. In the poetic metaphor, this meaning is absent; instead, the tactile and visual characteristics of sunlight are emphasized. However, the analysis of the contexts in which the metaphor is used shows not only an image-associative designation of the properties of sunlight but also an emphasis on its life-giving qualities.

In Ukrainian poetry, the moon is often analogized with a human, as evidenced by the widespread use of somatisms. The most frequently created metaphors of mythological origin follow these models: *eye* → *moon*, *creature / person* → *moon* (*prince* → *moon*, *shepherd* → *moon*), as well as *head* → *moon*, *skull* → *moon*, and others.

The image of *the wind*, which belongs to mythological universals, is associated with astral myths. The personified image of the wind is one of the most commonly used in Ukrainian poetry and has both positive and negative connotations. Whirlwinds and hurricanes in folk beliefs are identified with demonic entities, which is reflected in individual-author metaphors: "This wind – my demon – ruffles the fire..." (V. Herasymiuk). Similar associations underpin metaphors such as: "the wind beats on the drum" (V. Sosiura) and "The shaggy wind-ragged // opens up the fog in the fields, // dances a mad dance, // beats the sun's drum like a shaman" (L. Kostenko). A gentle breeze has a positive axiological coloring: "God's spirit in the breath of the winds" (Yurii Klen); "A light breeze sighs quietly outside the window" (P. Tychyna); "The wind kisses the flowers in the meadows..." (M. Lukiv).

Personification as a type of metaphor is considered to be associated with the primal mythological worldview, preserved to this day in the depths of ethnogenetic memory and archetypes [1]. Since ancient times, humans have seen analogs of their own lives in various manifestations of the surrounding world and unconsciously projected their feelings onto objects and phenomena around them. Reality appeared unalienated from

humans and was described in connection with certain human qualities. This type of metaphor, manifesting in many varieties, determined the development of cultures over a long period. However, with the evolution of cognitive activity, there came an understanding of the limitations of anthropomorphic metaphor as a fundamental regulative principle. Its usage in poetry largely depends on individual-author preferences, the poetic era, the movement, as well as the dominant cultural paradigm of a particular period. For example, in the works of B.-I. Antonych, who had a mythopoetic worldview, nature and celestial bodies are personified.

#### *Metaphors Reflecting Mythological Perceptions of the Plant and Animal World (Totemic Myths)*

The most significant plant image embodying the universal concept of the world is the Eternal Tree of Life, or the World Tree. This image is present in the mythology of many peoples, including Ukrainians. The universality of this image is likely connected to its expression of the idea of world order. The upward direction of the tree and most plants symbolizes life and development, while the downward direction represents decline and death. This image is widely represented in Ukrainian folklore, but in the poetry of the analyzed period, metaphors corresponding to it are rare. Instead, various tree metaphors are commonly used. The connection with myths can be traced in metaphors formed by the model *creature / person* → *tree*. It should be noted that in certain cases, this model can be bidirectional, meaning the properties of a creature/person can be projected onto a tree and vice versa.

In the ancient culture of the Eastern Slavs, trees were endowed with supernatural power, and it was believed that a person's fate depended on their union with their native nature. As M. Eliade emphasizes, "A tree was never an object of worship in itself; people honored what was inside it or what it signified for them" [7].

Representatives of the Ukrainian linguistic picture of the world are the images of the *oak*, *cherry*, *linden*, *poplar*, and *willow*, which were sacred in ancient times. According to A. Gieysztor, "The traits of the cult, the rituals of which were performed under the trees, should be associated not with the specific type of tree or its animistic image, but with the sacred power supposedly hidden within it. According to Constantine Porphyrogenitus, 'the Rus' of the 10th century, likely following the ancient tradition of local tribes, when crossing the Dnieper rapids, 'go ashore on the island named after St. George [Khortytzia], where, since there is a huge oak, they offer sacrifices in the form of live birds. Around it, they stick arrows into the ground, lay out bread or meat, or whatever they have with them, according to their customs'. The oak, about 2,000 years old, grew on this island until 1876 – it was in this place that the councils of the Zaporizhzhian Cossacks were once held" [8]. Based on the concept of the oak as the tree of the mighty Perun, numerous metaphors have been formed in Ukrainian poetry: "Oh oak, prince of the woods, worthy monarchal tree // in the autumn crown – the purple of leaves..." (B.-I. Antonych), "my prince oak" (I. Drach), (about oaks) "monarchs of Kyiv lands" (I. Svitlychnyi).

One of the most poetic images in 20th-century Ukrainian poetry is the *willow*, traditionally associated with sorrow, weeping, and water bodies. Deepening the semantics and expanding the collocability of the word, poets created original individual-author images based on the mythopoetic archetype of the willow. For instance, in V. Svidzinskyi's works, willows are the *thoughtful sisters of water*; in P. Tychyna's, *they pray in tears*; in V. Symonenko's writing, *green willows wring their hands*; in V. Stus's works, *willows weep // devoutly bending towards the pond*; in H. Chubach, *silent long-haired willows // also shed a tear from their leaves*. The image of the sorrowful willow is created in P. Tychyna's poem "Flowering Meadow": "Hey, by the road stands a willow, // catching the ringing rain strings, // swaying its branches as if sadly saying: // 'Sorrow, sorrow... // That's how the years, without end // I pluck the strings of

*Eternity // I, the lonely willow*". A similar image is the willow-harpist in L. Kostenko's poem: "*The rain stretches its autumn strings, // the willow touches those strings with its finger...*" These examples demonstrate, on the one hand, the continuity of the literary tradition, and on the other – the innovative use of poetic archetypes.

The tradition of using animal imagery in contemporary Ukrainian poetry also traces its origins to mythology and folklore, although this connection is not always evident. Some of these metaphors retain meanings consistent with the content of myths, while others have lost this connection. For example, the *falcon* symbolizes "courage, youth, strength, and wisdom. According to ancestral beliefs, it represents the god Rod, the guardian of the 'living fire' and the Tree of Life, a golden-winged bird that brought sparks of heavenly fire to the earth" [20]. The *eagle* is "the king of birds and the lord of the skies", and "in ancient times, it was believed that after death, a brave warrior becomes an eagle" [20]. In contemporary Ukrainian poetry, the metaphors of the *falcon* and the *eagle* traditionally denote brave and strong young men, warriors. These bird images are also associated with freedom, liberation, and victory, leading to the creation of metaphors such as "*the sweep of falcon wings of freedom*" (M. Rylskyi) and "*falcon freedom*" (V. Sosiura). The metaphorical image of the *snake* in contemporary poetry carries a pejorative connotation, signifying an evil, treacherous person. In mythology, this image is multifaceted: "1) the snake associated with water, mountains, it is a collector of tribute, guardian of borders, devourer, kidnapper, Cerberus, etc.; 2) the snake linked to fertility, the earth, feminine generative power, water, the sun on one side, and the domestic hearth, fire in general (especially heavenly fire), as well as with 3) the male fertilizing principle" [20]. Overall, it was associated with changes, transformations, and rebirth. The connection with myths is mainly evident in zoomorphic metaphors formed by the model *animal* → *being/human*.

Zoomorphic metaphors, which carry a distinctly pejorative connotation, are used to discredit or sharply diminish the subject of discourse. It has been observed that in Ukrainian poetry of the first half of the 20th century, zoomorphic metaphors primarily denote people (class enemies, fascists), while in poetic works of the second half of the century, they more often refer to objects and non-object entities. In the texts of recent decades, they also denote specific politicians or political forces. Words functioning as metaphors of negative evaluation include: *beast, hyena, snake (serpent, viper), boa constrictor, dog, fox, spider, octopus*, and others: "*Until we kill the beast – Revenge cuts like a yoke*" (A. Malushko); "*Hyenas of darkness emerged from their lairs*" (E. Andriivska); "*Hence, against the enemy, against the serpent, // the arrow flies – far over there!*" (P. Tychyna); "*He would have pelted you with the rocks of hatred, // you insatiable dogs, cursed traitors!*" (P. Tychyna).

In poetic works, we also find the use of zoomorphic metaphors with meliorative (positive) evaluation: *beast, dove, eagle, bee, butterfly*, etc.: "*words, timid little beasts*" (B. Rubchak); "*Gray dove of evening*" (V. Svidzinsky); "*the bee of your wisdom*" (A. Malushko); "*the butterfly of mood will suddenly be startled*" (I. Kalynets).

A distinct group is comprised of metaphors involving the cognitive structure of *wings*, due to their independent structure of the *bird* existence in mythology, folklore, various forms of art, heraldry, and so on. For millennia, across all cultural traditions, the image of wings has been associated with human spirituality and the life of the soul. Wings are "a solar symbol representing divinity, spiritual nature, action, willpower, mental strength, speed, protection, omnipresence, and the ability to transcend the real world" [20]. Accordingly, in Ukrainian poetry, wings are used to depict the *soul, thought, dream, joy, happiness, hope, intellect*, as well as *will* and *freedom*.

The metaphor "*winged word*" is also used in Ukrainian poetry. According to mythological beliefs, a word is an invisible emanation of the soul. Thus, if the *soul is a bird, then the word*

*is the wings of this bird*. The metaphorical epithet "*winged*" in relation to the word was first used by Homer and later became a traditional expression in literary art. In Ukrainian poetry, the metaphor "*winged word*" is often modified and enriched with coloristic semantics, notably with attributes like *silver, gray, or white*, which emphasize the significance of the word and its spiritual essence: "*They fly, they fly // Silver-winged words // To the meadow, endlessly covered with white lilies*" (M. Yohansen).

#### **Metaphors based on myths about humans**

These metaphors predominantly concern the *heart, soul, fate, death*, as well as individual feelings, such as *love*. In the naive linguistic beliefs of the Ukrainian people, the center of a person's emotional, spiritual, and physical life was the *heart*. In Ukrainian poetry, metaphors involving the heart relate to the internal psychological world of a person, reflecting connections with mythological concepts. Ukrainians have long believed that love, longing, fear, faith, and other emotions are born and reside in the heart. The heart was also associated with moral qualities of a person, such as kindness, conscience, mercy, humanity, and spiritual richness. The folkloric tradition of aestheticizing the *heart*, influenced on one hand by Christian worldview and on the other - by the artistic and aesthetic systems of sentimentalism, romanticism, symbolism, and later modernism, has continued in higher, intellectual forms of Ukrainian culture, particularly in poetry.

The image of the *soul* is also widely represented in Ukrainian poetry, reflecting the internal world of a person. This image is shaped by numerous evaluative and associative meanings of lexical units. M. Zubrytska notes that "the problem of the soul is a mutable play of image and concept, where spatial representations, particularly the geometric opposition of external/internal, prevail. The metaphorical articulation of the external and internal opposition transforms the soul into something mysterious, which neither possesses the poetic strength of its own imagery nor ever reaches a defined definition and simultaneously unambiguous semantics of a scientific concept" [24]. Metaphors reflecting ancient notions of the soul are predominantly formed according to models such as: *being* → *soul, internal substance of a person* → *soul, eye* → *soul, bird* → *soul*, and others.

National-linguistic peculiarities and poetic individuality are most vividly expressed at the level of the signifier (the auxiliary subject) of metaphorical constructions, particularly in its lexical meaning and cultural connotation, as well as in the evaluative criteria set by national-cultural stereotypes. For instance, in the phytomorphic metaphor, *your soul poured down - (Vranishnia vyshnia (Morning cherry))...* (P. Tychyna) the significant component of the construction is the word *cherry*, which is associated in the Ukrainian worldview with life, Ukraine, native land, mother, bride [6]. These associations stem from ancient beliefs and rituals of the Eastern Slavs, where the cherry tree was considered sacred. The white color of the cherry blossom was linked by ancient Ukrainians with the divine, pure, and light, which was regarded as the source of life. The adjective "*vranishnia*" (morning) highlights these qualities. The soul of a person was also considered divine, pure, and light. These attributes of the compared objects form the basis of the individual-author metaphorical reinterpretation of *cherry* → *soul*.

A key concept in both common and individual consciousness that defines a person's interaction with the surrounding world and active or passive stance towards everything that happens to him or those around him is *fate*. This concept is present in all mythological, religious, philosophical, and ethical systems, demonstrating its crucial role in human life and in the life of entire ethnic groups. The image of fate is widely and diversely represented in Ukrainian poetry. Analysis of fate metaphors reveals key characteristics that can be presented as such oppositions: determined / undetermined, constant / changeable, happy / unhappy, favorable / unfavorable. These attributes are fully embodied only in anthropomorphic metaphors, whereas in

metaphors of other types, their manifestation is limited to one or two attributes. Overall, the metaphorization of fate in Ukrainian poetry follows the anthropomorphic type, aligning with a tradition rooted in mythology. Fate metaphors represent various properties, with the most common being spontaneity, unpredictability, and variability.

*Death* is widely expressed metaphorically in Ukrainian poetry. Literary and philosophical interpretations of this concept have been influenced by existentialist philosophers and writers, who built upon the idea that death, in all its manifestations, renders the moment of human life invaluable, provides an understanding of the fullness and completeness of each moment of existence, and encourages the search for authenticity in one's being-in-the-world [19]. However, even before existentialism became a distinct philosophical movement and later independently of it, this issue was the subject of lyrical and philosophical studies by Ukrainian artists. The metaphorical expression of death in Ukrainian poetry occurs in several aspects: historical-philosophical (death as a social cataclysm, the demise of a people, nation, or state), religious-philosophical (in relation to the essence of the divine, eternity, nature), and existential-philosophical (in connection with the physical, emotional, moral, spiritual, and social existence of the individual). All these aspects are not presented in isolation in poetic texts but often intertwine and complement each other. The death of a person sometimes takes on the characteristics of a planetary catastrophe, as seen in the poetic texts of B.-I. Antonych, O. Stefaniovich, Y. Malaniuk, I. Kalynets, and others. Most metaphors are formed according to the model *entity* → *death*, which has mythological roots.

Related to the mythological worldview are also metaphors such as “*ark of the coffin*” (Y. Malaniuk) and “*boats of graves*” (*Gutsuls sit on boats of graves // under the rotting masts of crosses*) (I. Kalynets). According to ancient beliefs, death is a transition to another world, and to achieve this, one must overcome a water barrier. Thus, the body of the deceased was placed in a coffin, which was equated with an ark (boat): “*A white little boat of cedar, // A little boat of viburnum – // Such a boat, my dove, // Flies to the other world*” (B. Lepkyi); “*Without permission, without any carts // You stretch a canvas on the boat – and into eternity over the splashing // seas – head-on – // You will sail alone, alone // Under the soothing breeze...*” (P. Tychna); “*In the coffin, without words and complaint // Lay the well-known man. // On the planks, a pine boat // Waited for the underworld voyage*” (I. Drach). The mythological image of the boat or ship is characteristic of many ethnic traditions and is represented in various Old Slavic and Church Slavic texts.

#### 4 Conclusion

Mythological metaphors form a foundational layer in Ukrainian poetry. The semantic archetypes that underpin these metaphors belong to transnational cultural phenomena, yet their realization in the language of Ukrainian poetry reflects the specific worldview and value orientations of Ukrainians. Mythological metaphors ensure continuity in literary tradition and, at the same time, by incorporating elements of new realities and appealing to the imagination, stimulate the formation of new meanings.

The most numerous group in Ukrainian poetry is comprised of metaphors inspired by astral myths, as well as those reflecting mythological notions of the plant and animal worlds. These metaphors are predominantly used to depict scenes of nature in landscape and intimate lyric poetry. The least numerous groups include metaphors based on myths about humans and those related to myths about the earth.

Mythological metaphors exhibit various forms of expression in poetic texts. Some are implemented in established forms as traditional figurative devices, while others represent modified or transformed versions of traditional expressions.

The study has revealed a generally high productivity of mythology-based metaphorical models in Ukrainian poetic texts. These are present primarily in the works of writers who lean towards mythopoetic and folkloric worldviews. Such metaphors

are also found in early 20th-century lyric poetry, particularly among Symbolists and Impressionists, and are present in the poetry of the “Sixtiers” (Shistdesiatnyky). Mythological metaphors are also noted in the works of Ukrainian poets with a rationalistic outlook. For some artists, mythological metaphors mainly serve an emotional-expressive function (e.g., V. Sosiura, H. Chubach, M. Lukiv), while for others, they fulfill a conceptual-modeling function (e.g., B.-I. Antonych, M. Vinhranovskyi).

#### Literature:

1. Biletskyi, A. O. (n.d.). Mythology and myths of the ancient world. <http://litopys.org.ua/slovmith/slov02.htm>
2. Cassirer, E. (2013). *Language and myth*. Dover Publications, Incorporated.
3. Chase, R. V. (1949) *Quest for Myth*. Louisiana State University Press.
4. Count, E.W. (1952). The “earth-diver” and the Rival Twins: a clue to time correlation in North-Eurasian and North American mythology. In: S. Tax, ed. *Indian Tribes of Aboriginal America* (pp. 55-62). University of Chicago Press.
5. Davydiuk, V. (2005). *Primitive mythology of Ukrainian folklore*. Lutsk: Volyn Regional Printing House.
6. Dmytrenko, M., Ivannikova, L., Lozko, H., et al. (1994). *Ukrainian symbols*. Kyiv: Narodoznavstvo.
7. Eliade, M. (2000). *Treatise on the history of religions*. KR; 1st edition.
8. Gieysztor, A. (2014). *Slavic mythology* (translated from Polish). Kyiv: Klio.
9. Herder, J. G. (2012). *Philosophical writings*. Cambridge University Press.
10. Ilnytskyi, M. (2009). At the crossroads of the century: In 3 vols. Vol. III. Kyiv: Publishing House “Kyiv-Mohyla Academy”.
11. Jung, C. G. (1996). *The soul and myth: Six archetypes*. Kyiv: State Library of Ukraine for Youth.
12. Levi-Strauss, K. (2001). *Myth and Meaning*. In: M. Zubrytska, ed. *Anthology of World Literary and Critical Thought of the 20th Century* (pp. 448-464). Lviv: Litopys.
13. Lotman, Yu. & Uspensky, B. (1992). *Myth - name - culture. Selected articles in three volumes. Vol. I. Articles on semiotics and topology of culture*. Tallinn: Alexandra.
14. Malinowski, B. (2014). *Myth in Primitive Psychology*. Read Books Ltd. <https://www.perlego.com/book/3453176/myth-in-primitive-psychology-pdf>.
15. Müller, M. (1862). *The Science of Language*. <https://www.gutenberg.org/files/32856/32856-h/32856-h.html>
16. Potebnia, A. A. (1905). *From notes on the theory of literature*. Kharkiv: Steam Printing House and Lithography of Zilberberg.
17. Schelling, F. W. J. (2007). *Historical-critical introduction to the philosophy of mythology*. State University of New York Press.
18. Tylor, E. B. (1871). *Primitive culture: Researches into the development of mythology, philosophy, religion, art, and custom*. Vol. 1. [https://books.google.hu/books/about/Primitive\\_Culture.html?id=AuclAAAIAAJ&redir\\_esc=y](https://books.google.hu/books/about/Primitive_Culture.html?id=AuclAAAIAAJ&redir_esc=y)
19. Vasylyshyn, I. (2007). *Life – death – immortality: Existential discourse in the philosophical lyric poetry of Y. Malaniuk*. *Word and Time*, (11), 3-13.
20. Voitovych, V. M. (2005). *Ukrainian mythology*. Kyiv: Lybid.
21. Vico, G. (1744). *La Scienza nuova*. Laboratorio dell'ISPF, XII, 2015. [http://www.ispf-lab.cnr.it/2015\\_101.pdf](http://www.ispf-lab.cnr.it/2015_101.pdf)
22. Yermolenko, S. Y. (1999). *Essays on Ukrainian literature (stylistics and language culture)*. Kyiv: Dovira.
23. Zhaivoronok, V. (2006). *Signs of Ukrainian ethnoculture: Dictionary-reference book*. Kyiv: Dovira.
24. Zubrytska, M. (2004). *Homo legens: Reading as a socio-cultural phenomenon*. Lviv: Litopys.

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## ONYMS OF UKRAINE: LINGUISTIC AND CULTURAL DIMENSION

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**Abstract:** The article analyzes the oikonymic space of Ukraine in two aspects - onomastic and linguistic. The relevance of such a study is dictated by the need to consider onomastic phenomena from the point of view of linguistic and cultural studies, to investigate them in systemic-structural and anthropocentric paradigms. It is substantiated that onomastics, which is linguistic in its essence, as a science contains historical, geographical, ethnographic, sociological, cultural components, uses their vectors of analysis, while constantly producing and improving its own. The role of onomastic material in the structure of linguistic and cultural studies is outlined; on the basis of the names of the settlements, the issue of interconnection, mutual reflection and interpenetration of language and national culture was investigated; the theoretical and methodological principles of the study of the oikonymic space of Ukraine as an onomastic code were substantiated. The names of cities and settlements of modern Ukraine served as illustrative material of the study.

**Keywords:** onomastics; linguistic and cultural studies; oikonymic space; linguistic and cultural phenomenon.

### 1 Introduction

Language as a means of communication, "an instrument of thoughts and feelings of the people" [27] models the world, representing, probably, the only way to penetrate into its essence. Today, linguistic issues not only remain relevant, but also become one of the leading objects of philosophical understanding. Modern conditions pose humanity in front of the task of finding opportunities for mutual understanding between people, ways of deeply comprehending human reality.

This determines the appeal to the context of the existential tradition, where the focus is on the intersubjective aspect of linguistic reality.

The question of the interaction of language and culture is one of the central ones in linguistics, since language not only creates culture, but also develops in it. In science, like in all spheres of human life, each period dictates certain requirements. Modern anthropocentrism, which actively forms a new scientific paradigm, stimulates the understanding of language in the linguistic and cultural aspect. Linguistic culture today is a related field of ethnolinguistics, ethnopsychology, cognitivism, that is, sciences that study manifestations of the national spirit, national consciousness in various aspects [13, p. 3].

Professor Shariffian from Monash University (Australia) suggested the analytical framework of cultural linguistics (see Figure 1 below).

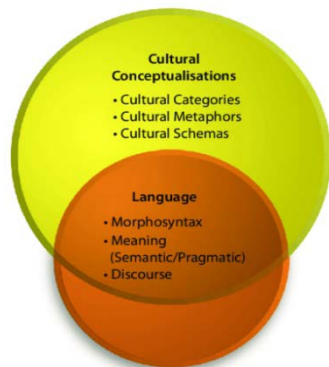


Figure 1. The analytical framework of Cultural Linguistics [20]

Each layer of natural language, containing units with a general denotative orientation, encodes information about a certain fragment of reality, passed through the prism of the speaker's inner world, which has absorbed the peculiarities of his spiritual culture. Research dealing with a double image (of a fragment of reality – in the mind of a culture bearer, of a fragment of consciousness – in language) sets before itself, respectively, two interrelated tasks: 1) to outline the specifics of the nationally conditioned perception of a fragment of reality; 2) to show the peculiarities of the language channel for 'broadcasting' information about such a fragment of reality.

Here it is worth pointing out one more specific feature: linguistic and cultural onomastic studies are mainly focused on the study of microtoponymy. Turning to microtoponymy as a culturally conditioned and ethnologically marked language material seems quite natural.

Turning to onyms as a source of linguistic and cultural information is logical and natural, because the most socially significant and stable quantum of linguistic and cultural information is encoded in the onomasticon. When talking about the linguistic and cultural study of onyms, it is important to appeal to their various classes - both more and less "culture-intensive". It is not easy to create an unconditional hierarchy, that is, to establish which class of onyms has more linguistic and cultural information, and which has less. In some groups of proper names, it seems to "lie on the surface" (microtoponyms or "folk toponyms", urbanonyms, ergonyms), while in others it is hidden behind the deep layers of ancient ethnonyms and ethnocultures (hydronyms), around some - it seems to create a linguistic and cultural aura (anthroponyms).

Examining the formation and development of Ukrainian oikonymy, researchers emphasize the diversity of its units: some oikonyms were formed from appellatives and geographical terms, many were preceded by microtoponyms, some settlements received names from hydronyms or oronyms, and still others would not have taken place without direct or indirect participation of anthroponyms in their creation or without the transition of a comonym into an astonym and vice versa - it already depended on the status characteristics of the signified. However, no matter how the process of forming the name of any of the settlements was carried out - be it the main and largest city of Ukraine - Kyiv (2,965,500 inhabitants), or one of its smallest villages - Batkivshchyna (1 inhabitant), located in the Zhytomyr region - for linguistic and cultural studies, they are always significant, because they are formed according to language laws. It is known that a new scientific branch - onomastics - in the 19th century was founded, and in the 20th century, on the basis of geography, history and linguistics, was built. Today, onomastic research is in close interaction with ethno-, socio-, eco-, pragma-, psycholinguistics, cognitivism, linguistic philosophy, as well as linguistic and cultural studies.

Consideration of oikonyms is only a part of onomastic work, but for many linguistic schools of Slavs it is important and even a priority. In particular, the study of the oikonymic space of Poland is connected with the works of Taszycki, Rospond, Rymut, Gornowicz Borek, etc.; oikonymic space of Czechia is reflected in studies by Šmilauer, Šrámek, etc.; Slovakia's oikonymic space was analyzed in the works of Varsik, Blanár, Majtán, etc. South Slavic oikonymy was considered in the investigations of Bulgarian scientists V. Georgiev, I. Duridanov, Y. Zaimov, N. Kovachev, etc., Slovenian one was studied by Bezljak, Miklosich, etc.

Among the large cohort of onomastics, the most important names for us are the names of those who, studying various classes of onyms, substantiated the methodology and tools of the study of the Ukrainian oikonomikon in the lexical-semantic, word-forming, and etymological aspects and whose works we primarily rely on: Biletskyi, Buchko, Bushakov, Galas Humetska, Karpenko, Kovalyk, Korduba, Loboda, Luchyk,



Nimchuk, Otin, Pura, and our contemporaries, some of whom actively worked, others are still working in the field of oikonomics (defending theses, issuing thorough research, developing the theory and practice of onomastic research): Abdula, Verbych, Volianyyuk, Gaborak, Holinaty, Yefimenko, Ivanenko, Karpenko, Kupchynska, Lysenko, Nadutenko, Radyo, Redkva, Torchynska, Tsaralunga, Shulgan, Shulgach, Yatsiy, etc.

The relevance of the research is dictated by the need to analyze onomastic phenomena from the point of view of linguistic and cultural studies, to make a transition from systemic-structural, "immanent" to anthropocentric onomastics, which examines language nominations in close connection with a person, his thinking, spiritual and practical activities. Some names of settlements have been preserved since ancient times, others have changed phonetically, morphemically, grammatically, lexically during the period of their existence, but each of them reflects the material and spiritual culture of the era that gave birth to them.

## 2 Materials and Methods

The research methodology is conditioned by its purpose, tasks, and material, has a complex nature and is based on general scientific and actually linguistic methods and techniques. The descriptive method of linguistic and cultural interpretation of settlement names made it possible to analyze oikonyms as a kind of condensed texts with lingual and extralingual information. In this perspective, it closely correlates with the techniques of linguistic and cultural analysis aimed at identifying and describing the national-cultural component in the semantics of the studied onomastic units. The manifestation of the comparative-historical method was the representation of ancient oikonymative models, onymic and appellative etymons, analysis of phono-morphemic and lexical transformations. With the help of the structural method, the methodology of derivational analysis, the word-forming structure of oikonyms is outlined. The semantic-motivational method helped to establish motivational factors for the creation of names of settlements, and, supplemented by the techniques of analysis of culturological and onomastic codes, this method made it possible to consider oikonyms as linguistic and cultural phenomena. Using the techniques of etymological analysis and analysis of dictionary definitions, the genesis of the studied units was clarified.

## 3 Results and Discussion

The anthropocentrism of modern linguistics determines the special status of proper names in the lexical space, and the names of inhabited and named objects (cities, urban-type settlements, villages) in the onomastic space. As M. Zhuykova convinces, "the principle of anthropocentrism declares the central role of man in all linguistic manifestations: any linguistic phenomena are considered as objects created by man and for man" [29, p. 97]. In the complex process of nomination, "the name is an impulse of culture, because it introduces a person into the symbolic cosmos, but it is also a result of it, since its meanings grow in the expanses of culture, are held on it and controlled by it (namely these features make a name one of the most important indicators of culture type)" [24].

Polish researchers termed the tradition of studying onyms from the point of view of cultural studies with the term *onomastyka kulturowa*. Rzetelska-Feleszko notes that it was first used in 2004 by R. Mruzyk in relation to literary, sociolinguistic, historical, comparative onomastics as an analogue to the term *lingwistyka kulturowa* established in Polish linguistics, and predicts a hopeful and promising future with new cultural onomastics research [19, p. 57-59]. The scientist interprets cultural onomastics as one of the directions of cultural linguistics and agrees with E. Kurylovich's opinion that in the process of communication, a proper name, in addition to identification, can perform additional functions: expressive, symbolic, evaluative, influencing, etc.

Studies on cultural onomastics involve: firstly, the search for naming motives that reflect material and spiritual culture and transform it into separate names or into a system of names; secondly, detection in the onyms, independently of the etymological meaning, of additional information, based on axiological, historical, religious, social, civilizational facts; third, the analysis of the name change, especially the change that occurs at the level of the function (for example, the function is neutral > expressive, symbolic, political). The research carried out in this way gives grounds to treat cultural onomastics as one of the directions of cultural linguistics [19, p. 58-59].

"The difficulty of etymologising the nameless material", S. Verbych notes, "is determined by the need for an individual approach to the analysis of each name, which must be considered against the broad background of similar formations, taking into account all its variants, by thoroughly understanding the phonetic regularities of the structure and the peculiarities of its word formation. < > This means that etymological and onomastic research should be comprehensive, i.e., based on linguistic facts as well as data from material culture and historical sources, in the case of toponymic lexicon - and the topographic characteristics of the area where a particular name is localized" [25, p. 51].

Onomastic research in Ukraine pursues a twofold goal: 1) to prepare and publish the Onomastic Atlas of Ukraine and the All-Ukrainian Dictionary of Oikonyms; 2) to contribute to the creation of the All-Slavic onomastic atlas (the idea was born back in 1958 at the IV International Congress of Slavists; the commission for its compilation was created in 1959 at the International Slavic Onomastic Conference in Krakow [15, p. 22]). Stimulation of such work and the process of its implementation are constantly in the field of view of the Ukrainian Onomastic Commission; these issues are discussed at numerous meetings, conferences, and seminars. And while the work on the implementation of these goals is still ongoing, onomastics of the beginning of the 21st century confidently fills new scientific gaps, among which there is the study of oikonymy in ethnolinguistic, cognitive, sociolinguistic, ecolinguistic, and linguistic aspects. Each of these directions of analysis has a certain specificity. "The peculiarity of the linguistic and cultural paradigm is that quite well-known linguistic and non-linguistic phenomena, materials, and facts are considered from the point of view of newly derived regularities. Sometimes, in their scientific research, the authors achieve a new quality, sometimes they put known postulates in a new verbal packaging" [2].

The linguistic and cultural aspect of onomastic research involves the study of the national and cultural background against which proper names appear and their systems develop [22], demonstrates the connection of the naming process with ethnic consciousness, national mentality and culture. Onomastic research, carried out in a cultural sense, contributes to the study of migration routes of individual ethnic groups, the identification of places of their former residence, the determination of linguistic and cultural contacts of peoples, etc.

Analyzing the semantics of an onym, one should consider its informativeness, or rather the speech, encyclopedic, and linguistic components of such informativeness. Speech information reproduces the association of a name with an object and reveals the speaker's attitude toward the object. This is the most massive and superficial information of the proper name, known always and to everyone. Encyclopedic one, on the other hand, is not only a complex of information known to the speaker after his familiarizing himself with the object, but also the sum of previous information that the speaker can glean from relevant sources, despite the fact that he has never seen the object.

While the speech and encyclopedic components "are on the surface" and are available for comprehensive study, a detailed analysis is necessary to consider the linguistic component, which includes the following aspects:

- 1) linguistic belonging of the onym;

- 2) word formation model;
- 3) etymology;
- 4) justification of the choice of this rather than another original base (etymon);
- 5) extralingual characteristics (geographic, historical, cultural aspects of the informative field); 6) accentuation and creation of derivative forms [22].

It should be noted that the semantic characteristics of appellative and proper vocabulary differ significantly. It is not necessary to look for common criteria for the semantic analysis of all onymic vocabulary: they do not coincide in different classes of onymics. The oikonym can be considered from three positions, its functions: 1) as an administrative-territorial sign; 2) in speech as the name of a specific settlement; 3) sometimes in an artistic text and occasionally in speech as a connotative unit. In the first case, the oikonym has no real meaning, performs a nominative function, and serves as a verbal sign of an object inhabited by a person. An oikonym as the name of a specific settlement in speech is endowed with encyclopedic (historical, linguistic, cultural, geographical, etc.), partially (selectively) associative informativeness and a peculiar semantics, which, according to a reliable etymological analysis, can be determined by the semantics of an appellative etymon or an indication of an onymic etymon; it performs, in addition to nominative, identification and differentiation functions. An oikonym as a connotative unit in fiction text and in speech can take on various cultural connotations.

The analysis of the oikonymous material convinces us of the correctness of interpreting each oikonym as an oikoculturonym. However, it is also important that the cultural content of different oikoculturonyms is not the same. The names of the settlements Sambir (*Самбір*) and Bir (*Бір*) can serve as confirmation of this. From the point of view of folk etymology, which is focused on the semantic convergence of appellative and onymic lexicon, these oikonyms seem to be motivated by the geographical term *бір / сам бір* (bir / sam bir) (meaning “only bir”). However, the results of the etymological, word-formation, and lexical-semantic analyzes are convincing in the opinion that *Самбір (Самборь)* Sambir (Sambor) is an anthroponymic formation, having the *\*-jъ* from the personal name Sambir (Sambor) with the original meaning “Sambor’ yard”, i.e., “the yard belonging to Sambor”. Bir is an appellative or, more likely, a microtoponymic formation, based on the appellative / geographical term *бір* (bir) ‘pine or other coniferous forest; also a mixed forest with a predominance of pine’ or microtoponym Bir. Accordingly, both in the first and second cases, linguistic information is projected onto cultural information. The structure and semantics of the oikonym Sambir indicates: 1) the probable time of the establishment of the settlement (before the 13th century, since this is the period when the suffix *\*-jъ* was still productive as a means of creating possessive oikonyms); 2) to the ancient Slavic composite name *Самборь* (< *Сам* – “alone”, - *борь* “to fight; battle”), preserved today as a surname (Maria Sambir). We get other information from the analysis of the oikonym Bir: the settlement was founded in a pine forest (bor), so a remarkable object in this area gave its name to the settlement. However, both oikonyms are oikoculturonyms, because both Sambir and Bir are formed according to linguistic laws and are carriers of certain cultural information: at the stage of their naming, this was exactly the name-creative culture of the man-nominator.

We carry out the onomastic and cultural analysis of the oikonymic space of Ukraine mainly on the material of astonyms. The choice of the latter is not accidental. Names of cities: 1) are cultural, “represent a set of cultured ideas about the world picture of a certain society: about natural objects, artifacts, phenomena, actions and events isolated in it (in nature), mentofacts and spatio-temporal and quantitative-qualitative measurements belonging to these entities” [7]; 2) represent the naming culture of the whole of Ukraine, and not only of a separate region; 3) have not yet been the object of comprehensive onomastic-linguistic-cultural studies. We are aware that comonymous and microtoponymic material is also

rich in linguistic and cultural content, but the lack of all-Ukrainian lexicons of such units complicates their linguistic and cultural reading.

The cultural meanings present in each astonym can be decoded through the onymic and appellative codes. In other words, decoding, for example, the astiocultural name *Люботин* (Lubotyń), its reading as an element of a collated linguistic and cultural text prompts the researcher, first of all, to reveal the onym used in the original encoding of the name (anthroponym *Любота* (Lubota)). Conversely, the decoding of the astiocultural name *Долина* (Dolyna) makes it possible to identify the appellative *долина* (dolyna) and talk about the appellative code of the astonym. Thus, within the onymic code, we explain the origin of the oikonym with the help of another proper name, and within the framework of the appellative – with the help of the common name.

As part of the anthroponymic code, we distinguish individual anthroponymic, anthroponymic group, memorial, hydronymic, microtoponymic, choronymous, oronymous, ergonymic codes, in the structure of the appellative - landscape-artifact, local-ethnic, official, symbolic-worldview codes.

An important component of the onomastic and cultural examination of the name of an urban settlement is the delineation, structuring, and modeling of the linguistic and cultural portrait of the astonym. It makes it possible to objectify the implicit social and cultural-national characteristics of the name of the city as fully as possible. This is the main difference between a linguistic and cultural portrait and articles in lexicographic publications, which usually only partially present information related to non-linguistic factors.

The diversity of modern oikonymy, the tradition and innovation of Ukrainian naming, the abundance of principles, motives, methods and means of naming are a good reason to talk about the names of populated areas of Ukraine as condensed linguistic and cultural texts that reflect the native language and national culture, history and geography, mentality, worldview and social ideology, folk psychology and ethnic worldview, and the spirit of the person who created the name.

The Ukrainianness of a Ukrainian city begins with the Ukrainianness of its name. The village is the roots, the city is the trunk and crown of the national tree. The name of each of the settlements is a special linguistic and cultural text, the encryption of which took place at the time of assigning the name, and the decryption continues throughout the entire period of existence of the settlement.

Archaic possessive oikonyms in *\*-jъ* were the object of onomastic research more than once. Buchko wrote about them in Ukraine [3, p. 338-346], as well as Kupchynska [15, p. 122-125] and others.

The names of the current Ukrainian cities, formed according to the old possessive model with *\*-jъ* and motivated by Old Slavic two-base names, are mainly chronicled oikonymic heritage, elaborated in a number of lexicons. The microcode “Old Slavic names-composites” presents two groups of names: 1) astiocultural names, motivated by Old Slavic names-composites, attested in well-known onomastics, historical sources or special works: *Богуслав, Борислав, Володимир-Волинський, Доброміль, Житомир, Ізяслав, Переяслав, Старий Самбір* (Bohuslav, Boryslav, Volodymyr-Volynskyi, Dobromil, Zhytomyr, Izyaslav, Pereyaslav, Stary Sambir); 2) astioculturonyms motivated by reconstructed composite names, the components of which are attested in other Old Slavic composite names: *Дрогобич, Збараж, Радомисьль, Чорнобиль* (Drohobych, Zbarazh, Radomyshl, Chornobyl).

The current city of *Богуслав* (Boguslav) got its name as a legacy from the ancient settlement of the same name *Богоуславъ: Всеволодь бо проаше оу него ... Богоуславъ*, 1195 [9, p. 20], which was part of the defense system of the Kyiv principality. The astonym is motivated by the composite name

*Богуславъ*: *Богуславъ* + *\*-ѣ* → *Богуславль* → м. *Богуслав*. Originally, the name could mean “famous for love, happiness, wealth, good fate”, “be happy” [18, p. 70]. This personal proper name is known in many Slavic languages: Bulg. *Богуслав*, Pol. *Boguslaw* [23 1/2, p. 189], Serb. *Богослав* [4, p. 66], and others. The name also has few specific historical bearers – the West Pomeranian (Szczecin) prince Bohuslav I and his son Bohuslav II.

The analyzed astioculturonym is included in the system of Ukrainian symbol formation. We are referring to the eponymous nickname of Marusa Bohuslavka – the heroine of the Cossack People’s Duma, who freed 700 Cossack slaves after their thirty-year stay in Turkish captivity and became a symbol of the heroic devotion of a Ukrainian woman to her native land and its defenders.

According to the same scheme as the astonym Bohuslav, the name of the present city of *Борислав* (Boryslav) (Lviv region) was formed: *Бориславъ* + *\*-ѣ* → *Бориславль* → city *Борислав*. The chronicled *Бориславль дворъ* (Boryslavl yard) was located in Kyiv, and not the *\*Бориславль* settlement recorded in historical sources – in Subcarpathia. The name of the current city (in the original sources – the monastery) is attested in Polish-language documents of the 14th century, but without the *-ль* component of the base *-славль*: *Boryslaw*, 1387 [17 IV, p. 330], which serves as a reason for doubts about the probability of the ancient Ukrainian period of its foundation. However, the antiquity of the appearance of Boryslav is confirmed by the neighborhood of the powerful ancient fortress of the 9th century *Тустань* (Tustanj), as well as the antiquity of the names of those settlements that in the 30s of the 20th century became part of Boryslav (*Тустановичі*, *Губичі*, *Мразниця*; *Баня-Котівська* (Tustanovichі, Gubichy, Mraznitsia; Banya-Kotivska) is also now a part of Boryslav, but it is already a much younger settlement) and, undoubtedly, linguistic factors: the archaicism of the oikonymative model on *\*-ѣ* and the basic composite name. The oldest written record of Proto-Slavic name *Бориславъ* of 1147 refers to the boyar *Борислав*, who was probably the father of the chronicler Nestor. The pre-nominal meaning of the lexeme *борислав* was wishful and expressed the idea of ‘fight for glory!’ [4, p. 75].

Mentioned in documents of the 14th century the Boryslav monastery took the obviously ready-made name of the settlement (fortification) *\*Бориславль*, on the land of which it was built. Other versions, such as the formation of an oikonym from the phrase *бори слави* or *борці слави*, from the name of a person *славний з борів* (glorious from bors), from the adjective *бруслав* (bruslav) (?) ‘stony’, from the hypothetical lexeme *брение* [16] – folk etymology, devoid of scientific background.

The name of the city of *Балта* (Balta) (Odesa region), founded on the Kodima River no later than the 16th century [10 I, p. 68], is motivated by the appellation *балта*. *Балта* is a polysemous word used in the meaning: ‘1) axe; 2) liquid dirt’ [6, p. 25]. We believe that the nomination of the former Balta fortress was based on the second of the above values, cf. dialectic *balta* ‘river, spring, stream; flood of the river’, *balto* ‘swamp’ [11, p. 18]. The appellative *балта* is a borrowing from Eastern Romanesque languages; Rom. *balță* ‘swamp; lake; pond’, Mold. *Balte* ‘swamp’ is related to Proto-Slavic *\*bolto* ‘swamp’ [8 I, p. 130]. Such a geographical term is used in many languages: Mold. *balte* ‘swamp’; Rom. *balță* ‘swamp; lake; pond’; Alb. *balte* ‘swamp’; Italian dial. *balta* ‘dirt’; Greek *valtos* ‘swamp’; Gagauz *balta* ‘swamp; a lowland inconvenient for agriculture’; Bulg. *balta* ‘swamp’; Lithuanian *bala* ‘dirt; puddle; swamp’; Latvian *bala* ‘swamp, wet, rotten place’. The folk geographical term *balta* is used in different regions of Ukraine: in the meaning “the lower part of the river mouth, mostly flooded with water that does not dry up even in the middle of summer” – on the Lower Danube, “swamped valley, swamp” – in the Carpathians.

Since 1444, the settlement of *Ланівці* (Lanivtsi) (Ternopil region) – Lanowcze – is known. The astonym is formed from the name of people by the place of settlement (residence): *lanivtsi*

“those who settled (live) *на ланах* (in the fields)”. A possible motivation for the name of the settlement is the katoikonym *ланівці* – ‘immigrants from the settlement of *Лань*’, the family name *Ланівці*, ‘the family of *Ланівцевъ*’, the patronymic name *Ланівці*, ‘descendants or subjects of *Лань*’.

The name of the current city of *Підгайці* (Pidhayci) (Ternopil region) was recorded in the sources of: 1397: *Podhayce* [1 I, p. 13]; 1444: *Podhajce* [28 VIII, p. 297]. It was formed from the name of people based on the place of settlement (residence): *підгайці* “those who settled (live) under the grove”. M. Khudash notes that originally the katoikonym could appear by lexicalizing the appellative prepositional phrase *під + гай* with the help of the suffix *-ці* (*підгайці* ‘people who settled under the grove’) or from the oikonym *Підгай* (Pidgay) (*підгайці* ‘expatriates, immigrants from Pidgay’) [12, pp. 184].

The first known written mention of the settlement of *Трускавець* (Truskavets) (Lviv region) dates back to 1462: *Truszkawecz* [1 XIII, p. 472]; 1471: *Truschkowycz* [1 XVIII, p. 132]; 1472: *Truskawecz* [1 XVIII, p. 288], and others. Most likely, the name of the city is motivated by a hydronym, cf. sweat *Трускавець* (Truskavets), between Butelskyi and Lazok rivers: *Truskavets river* → *Truskavets city*.

S. Verbych believes that the genesis of the hydronym *Truskavets* can be deduced from the archaic *\*truskavъsъ* < *truskavъjъ* < *\*truskati*, cf. Czech *truskati* ‘to flow rapidly (about a stream of water)’: *\*truskavъsъ* ‘a stream with a rapid current’ or ‘a stream where there is a source’ [26, p. 264].

Thus, astioculturonyms motivated by group local names are geography, history, language, and culture in one name. The naming of such settlements primarily characterizes the inhabitants based on the developed and inhabited space, at the same time indicating the small homeland of the migrants.

Each period in social development is associated with the emergence of new professions: the productive forces of society stimulate the emergence of industries that must be served by people with a certain set of qualifications and skills. Words that originally named residents based on the nature of the work performed, official position, profession, became oikonyms, if representatives of a certain profession settled in an as-yet-unnamed territory, or in the place of their settlement the relevant service or production activity acquired such social importance that the original name ceased to exist to be relevant and the settlement was further named according to the profession of its inhabitants. This is how oikonyms appeared, which in modern scientific literature are called formations from occupational or professional names – representatives of the occupational code. By structure, these are multiple derivatives on *и/-і*.

Attested in written sources of different centuries, such settlements were founded not simultaneously. In addition, today we cannot be sure whether the name of the settlement, say, *Мельники* (Melnyky), was formed from the name of the professional occupation of its inhabitants (*мельники* (melnyky) – mill workers), or from the name of the family that lived in the settlement (*Мельник* (Melnyk) and his family). However, both the first and the second are evidence that at the time of the foundation of the settlement, such a profession was observed here: either the whole community (large or small) was engaged in the specified craft, or the ancestor had such a profession, or he was the bearer of an occupational (professional) nickname or (already later) surnames. According to our observations, at least 29 such oikonyms have been preserved only in the territory of modern Galicia: *Блюдники* (Blyudniki), *Бертники* (Bertniki) (formerly *Berdniki*), *Бобрівники* (Bobrivniki), *Бортники* (Bortniki), *Бровари* (Brovary), *Винники* (Vinnyky), *Золотники* (Zolotniki), *Колодруби* (Kolodruby), *Конюхи* (Konukhi), *Лісники* (Lysnyki), *Мельники* (Melnyki), *Ререпілки* (Perepylniki), *Поплавники* (Poplavnyky), *Рудники* (Rudnyki), *Санники* (Sannyki), *Сокільники*, *Стадники* (Stadnyki), *Тенетники* (Tenetniki) [14]. It is characteristic that these and other similar Ukrainian settlements are mostly the names of

suburban villages, while Brovary and Vinnyky are cities founded near Kyiv and Lviv.

Thus, astioculturonyms of the appellative code preserve in their foundations lexemes that determine the semantic content of the name of the settlement, demonstrate rich historical, geographical, worldview information, are often linguistic relics, the reconstruction of which is made possible precisely by the existence of a particular name of the city. Such databases, explaining information about the natural features of the area, about objects created by man, contain an ancient layer of vocabulary, rarely used (or even not used) today - folk geographic terminology.

It should be noted that the associations caused by the names of settlements often serve as the basis for the birth of symbols. Such words-symbols live throughout the entire period of existence of the settlement, although they are not always an objective interpretation of the genesis of its name.

The outlined theoretical and methodological foundations of the research give grounds for the following conclusions: 1) the interaction of onomastics and linguocultural studies means a transition from system-structural onomastics to culture- and anthropocentric ones; 2) today, it is important to talk not about linguistic-cultural onomastics, but about the linguistic-cultural aspect of onomastics; 3) oikonym as a linguistic and cultural text is a unit endowed with a peculiar semantics; 4) as a result of the interaction of language and culture, a new linguistic and cultural sign appears, a unit of onomastic code; 5) decoding oikoculturonyms reveals many important phenomena of a worldview, ethnic, and national character.

Modern linguistics in the time of integrated theories combines fields of human knowledge that until recently seemed incompatible: ecology, ethnology, philosophy, psychology of language, mathematical, cognitive, sociological, gender linguistics, etc. are established. The study of the oikonymic space of Ukraine in the interpenetration of onomastics and linguocultural studies represents a new direction of linguistic and cultural studies, which, definitely, should be developed.

#### Literature:

1. Akta grodzkie i ziemskie czasów Rzeczypospolitej Polskiej z Archiwum tak zwanego Bernardyńskiego we Lwowie. Lwów, 1868-1935. T. I-XXV.
2. Bilaniuk, L. (2006). *Contested tongues: Language politics and cultural correction in Ukraine*. Cornell University Press.
3. Buchko, G., & Buchko, D. (2013). *Historical and modern Ukrainian onomastics: Selected works*. Chernivtsi: Bukrek.
4. Chuchka, P. P. (2011). *Slavic personal names of Ukrainians: historical and etymological dictionary*. Uzhgorod: Uzhhorod National University.
5. Dictionary of hydronyms of Ukraine (1979). Kyiv: Naukova dumka.
6. Dictionary of the Ukrainian language in 4 volumes. Kyiv: Naukova dumka, 1996-1997. T. 1-4.
7. Dvorianchykova, S., & Bondarchuk, J. (2023). Linguo-cultural horizons of onyms and poetonyms in teaching Ukrainian as a foreign language. *Slavica Wratislaviensia*, 178.
8. Etymological dictionary of the Ukrainian language: in 7 vols. Kyiv: Naukova dumka, 1983. Vol. 1.
9. Etymological dictionary of historical geographical names of Southern Rus (1985). Kyiv: Naukova Dumka.
10. Geographical encyclopedia of Ukraine: in 3 vols. "Ukrainian Encyclopedia" named after M. P. Bazhan, 1989-1993.
11. Gromko, T.V., Luchyk, V.V., & Polyarush, T.I. (1999). *Dictionary of folk geographic terms of Kirovohrad region*. KDPU.
12. Khudash, M. (2006). *Ukrainian Carpathian and Pre-Carpathian names of settlements (appellative formations)*. Lviv: Institute of Folklore of the National Academy of Sciences of Ukraine.
13. Kononenko, V. I. (2008). *Ukrainian linguistic culture*. Kyiv: Vyscha Shkola.
14. Kotovych, V.V. (2016). Onyms of ancient Galicia: linguistic and cultural aspect. *Actual Problems of Philology and Translation Studies*, 10. Vol. 2 (K-P), 50-55.
15. Kupchynska, Z. O. (2016). *Stratigraphy of archaic oikonymy of Ukraine*. Lviv: National Academy of Sciences.
16. Mykulych, O. (2015). *The oldest Boryslav*. <http://spado.k.org.ua>
17. *Matricularum Regni Poloniae Summaria*. Warszawa, 1907-1908. Pars 1-3; 1910-1915. Pars 4/1-3; 1919. Pars 5/1-2.
18. Radyo, L. (1998). Ancient Ukrainian composite names in the bases of oikonyms in -\*jъ, -\*ja. *Scientific Notes of Ternopil State Pedagogical University. Linguistics*, 1, 69-73.
19. Rzetelska-Feleszko, E. (2007). *Nowe nazwy własne – nowe tendencje badawcze*. Kraków.
20. Shariffian, F. (2017). *Cultural Linguistics: The state of the art*. [http://dx.doi.org/10.1007/978-981-10-4056-6\\_1](http://dx.doi.org/10.1007/978-981-10-4056-6_1)
21. Shul'gach, V.P. (2008). *Essays on Proto-Slavic anthroponymy. Part I*. Kyiv: Dovira,
22. Seals, S. (2019). *Choosing a mother tongue: The politics of language and identity in Ukraine*. Multilingual Matters Ltd.
23. Słownik staropolskich nazw osobowych. Wrocław. 1965-1985. T. I-VII.
24. Toporov, V. (n.d.). The name as a factor of culture (for the malice of the day). [http://www.gumer.info/bibliotek\\_Buks/Linguist/topor/name.php](http://www.gumer.info/bibliotek_Buks/Linguist/topor/name.php)
25. Verbych, S. (2010). Oronimy of the Ukrainian Carpathians: prospects for research, preservation, and arrangement. *Ukrainian Language*, 3, 135-140.
26. Verbych, S.O. (2017). *Hydronymy of the Dniester basin*. Lutsk: Teren.
27. Vrbinc, A. (2019). *A cross-linguistic and cross-cultural analysis of English and Slovene onomastic phraseological units*. Cambridge Scholars Publishing.
28. Zbiór dokumentów małopolskich. Wrocław etc., 1965-1976. Cz. 1-8.
29. Zhuykova, M. (2014). Broadcasting of cultural information in nomination processes. *Typology and Functions of Language Units*, 1, 95-105.

#### Primary Paper Section: A

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## FEATURES OF THE COMMUNICATIVE SPACE OF UKRAINIAN ONLINE MEDIA DURING WARTIME

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**Abstract:** The article represents an attempt to analyze the landscape of Ukrainian online media and their communicative space during the current Russia-Ukraine war. It is shown that the communicative function of journalism is more closely integrated with the informative function, and professional journalism – with citizen journalism. It is revealed that “emotions of war” often dominate “chronicles of war” and even supplant them. Within this analysis, the authors address cases of former Yugoslavia and war in Syria, claiming that the war reporters bear the usual load of biases and misconceptions, and covering violent and miserable events requires careful handling of such load, taking into account the critical influence of media today both in national and global scale.

**Keywords:** online media; journalism; wartime; bias.

### 1 Introduction

The communicative space of online media responds flexibly and dynamically to societal changes. As correctly noted by K. Nastoiashcha, the transformation of the communicative space (in social networks) is associated not only with exerting a specific influence on the persona of network actors but also with the restructuring of this space as a whole. Primarily, communicative sense-making changes, encompassing the definition, marking, and declaration of various meanings [1;2;17;22;23]. This particularly pertains to the confrontation between enemy’ and Ukrainian narratives, which in the realm of online communication is notably vivid and dynamic.

L.V. Sorochuk notes: “Nowadays, in a difficult time for Ukrainian society, despite the financial crisis, political instability, manifestations of hybrid warfare, the aggravation of the military conflict in the east of Ukraine, the Ukrainian nation is modernizing and actively creating its cultural field. Ukrainian ethno-cultural tradition finds new forms of living and functions in the informational and cultural space of the state to satisfy aesthetic and cultural needs and harmonize people with the surrounding world” [21, p. 169]. This ethno-cultural tradition is reflected also in the functioning of domestic online media, their journalistic tradition.

Examining how media and communication technologies build the infrastructures that shape how conflicts are portrayed and acted out is an ongoing and crucial work for academics from several disciplines. Research on the connection between the media and war has looked into how print and broadcast journalism affects public opinion and, in turn, how policies are made. Scholars have focused on how nations’ attempts to regulate and choose information from the front lines have shaped media framings of war, beginning with Harold D. Lasswell’s groundbreaking propaganda studies during the interwar years [16]. Many different state and non-state actors use the media as weapons of mass destruction. As understood in scholarly discussions concerning “mediatized conflicts”, which refer to media as an entity that is actively involved in co-structuring conflict, they constitute a channel for making conflicts known and visible for local and global audiences as well as one of the environments in which war is waged and shaped.

N. Zhukova, understanding communicative practices as “methods of interaction aimed at transmitting information and generating meanings, creating, reproducing, and transforming social reality, fostering a sense of engagement in interaction with others, and thus creating cohesion and identification of communities and self-identification of individuals” [27], notes that first and foremost, the harsh conditions and course of

struggle during armed conflict are documented, along with reflection on events, and this applies not only to informational materials directly related to wartime themes.

As A. Chervinchuk aptly writes, in conditions of war, a journalist, including an author of online media, acquires a distinct status as a communicator. He can engage with his audience through the lenses of “war chronicles” or “emotions of war”. These two modes of representation serve different communicative goals. “War chronicles” primarily focus on events with factual and documentary precision, aiming to provide readers (viewers, listeners) with an understanding of the causes and consequences (context) of events. The communicative intentions behind representing the “emotions of war” involve conveying the tragedy of war through subjective perceptions of events, displaying the emotional experiences of individuals directly affected by the war “here and now”, and bringing their stories to a mass audience [3].

Both representations require improvement and prior preparation of the media space, clearing it of “information garbage”. This process is quite challenging in the Ukrainian internet space. According to the study “Ukrainian Media and War: Results of IMI Monitoring 2022”, conducted by the public organization Institute of Mass Information (IMI), the beginning of journalistic reflection, motivated by the need to improve communication with readers under wartime stress, was marked by the near-complete disappearance of “denim and sexism” [15] from online media publications. However, by the fall of 2022, researchers found that the situation had changed, and “those media that had discriminated against women reverted to their old ways” [15].

On their official website, IMI representatives write about their communication standards with the audience as follows: “We show tolerance towards other social network users. If we are criticized, we respond cautiously, without making it personal, addressing only the substance of the criticism. We may choose to refrain from responding” [14]. This reflects a liberal and sometimes avoidant approach by the editorial team in shaping the communicative space, where the leading role is assigned to tolerance towards the consumer of the informational product [5; 24].

Particular attention should be given to how representatives of the journalistic public organization manage conflict communication in cyberspace. Publishing different viewpoints on conflict topics within a single piece is a common practice for IMI. When it is not possible to promptly publish comments from one of the parties, these comments are presented separately with a reference, providing context for the audience. The positions of the parties are presented by legitimate speakers of the same representative level, sometimes with the involvement of external, unbiased experts who are competent in the subject matter of the discussion [20]. This approach ensures the objectivity of the journalistic material on one hand and fosters dialogic interaction with the audience on the other. Additionally, professional communicators must consider the specifics of building communication with people traumatized by military actions – soldiers, their relatives, and civilians [3].

The influence potential of a certain cyber media outlet on the Ukrainian-language communicative space is determined by the scale of its audience, meaning its popularity. However, the available potential for influencing the information space is not always fully realized by journalists. According to IMI research, at the beginning of the Russian-Ukrainian war, the traffic of some Ukrainian media increased by 300%. In the first quarter of 2022, “Ukrainska Pravda” led in the number of views with a record average of 136 million views per month. Last year, “Censor” was the leader with 41.2 million views. However, in the second and third quarters of the same year, IMI experts noted a significant decline in audience growth and engagement with the content. According to IMI analysts, Ukrainians grew tired of

living with constant war updates, leading to decreased interest in news sites. However, from our perspective, the decline in audience interest in certain cyber media is not only due to fatigue but also to insufficiently effective communication with readers, which would motivate them to maintain long-term loyalty to the publication. Another significant reason is rapid growth of popularity of citizen journalism, the example of which is Telegram channel “Trukha”.

This specific landscape of Ukrainian online media needs deep investigation and comprehension, with the use of methods for study the functioning of media in war zones, in particular with application of case studies analysis, best practices and failures of media during war conflicts.

## 2 Materials and Methods

Based on the fact that the problems of the development of journalism in armed conflicts are interdisciplinary in nature, it seems quite logical to turn to the methodology of complex analysis, which allows considering the journalism of modern armed conflicts as a set of journalistic practices and texts.

In accordance with the chosen systematic approach to analysis, journalism of armed conflicts is considered as a special type of journalism, representing an integral system. The typological approach used in the course of the study made it possible to analyze and present the typology of journalistic publications on the issues of armed conflicts.

Methods of inductive and deductive analysis are also used to understand the specifics of journalism in modern armed conflicts.

## 3 Results and Discussion

In the context of the informational wartime noise, the quality of creating the media's communicative space and a responsible approach to this process are becoming increasingly important. According to A. Chervinchuk, it is crucial that journalistic materials “... shape public opinion, provide a multifaceted and vivid understanding of the war, while simultaneously adhering to journalistic standards” [3].

Not all editions influential in terms of reaching a large audience were included into the IMI's “white list”. A two-stage in-depth monitoring of online media conducted by the Institute of Mass Information in August-September 2023 included the editorial teams of “Suspilne”, “Hromadske”, “Liga”, “Ukrainska Pravda”, “Ukrinform”, ZN.ua, “Babel”, NV, and “Espresso” [6]. In the first half of 2024, 11 editions entered the IMI's “white list”: “Suspilne”, “Radio Svoboda”, “Ukrayinska Pravda”, “Babel”, “Hromadske”, “Texty”, ZN.ua, “Espresso”, “Slovo i Dilo”, “Ukrainskyi Tyzhden”, and “Hromadske Radio” [12].

During the monitoring by the Institute of Mass Information, the following aspects are analyzed:

- Research of 50 popular Ukrainian online media outlets, which were featured in previous IMI, SimilarWeb, and Gemius monitors, regarding “presence of manipulations, fakes, hate speech, black PR, ethical violations, and materials with signs of being commissioned” [11].
- Evaluation of whether journalists adhere to “standards of balance, reliability, and separation of facts from comments”, as well as checks for transparency, “including the presence of contact information, editorial policies, data about the owner, information about people responsible for content, and more on the website” [11].

It is important to emphasize that all the criteria of this monitoring directly relate to the communicative function of e-journalism, a responsible approach to interacting with the audience, whose expectations of media professionals are quite high under difficult wartime conditions. Researchers from the Institute of Mass Information formed the monitoring sample solely from online media registered in Ukraine, without

analyzing the Ukrainian pages of foreign media [11]. This approach can be explained by several reasons, including:

- The regionalization of e-journalism
- The study of the national (ethnomental) communicative space, influenced by factors beyond just the Ukrainian language.
- Differences in journalistic standards in Ukraine and abroad.
- The varying involvement of Ukrainian journalists and foreign correspondents both in the war events directly and in communication with the domestic audience, among other factors.

Research conducted by IMI in 2023 revealed that in terms of communicative influence and the capabilities of informational activities in cyberspace, reputable Ukrainian media often fall behind “shadowy” resources of questionable quality. For instance, in March 2023, using the TGstat service, researchers from the Institute of Mass Information identified the 10 most popular Telegram channels in the Ukrainian segment. Among them, there were seven anonymous and three personal resources, some of which are confirmed to collaborate with Russians [10]. Notably, President Zelenskyi's official channel (chosen by 5.2% of respondents) ranked lower than the anonymous channel with a dubious owner, “TrukhaUkraine” (8.7% of respondents). In November 2023, the top three among news telegram channels included “Trukha” (15%), “Ukraine Online” (7%) and “Lachen writes” (7%). The leaders are also Facebook (19%) and Youtube – 15% (this includes TV channels broadcast by Youtube, personal channels of experts, etc.). According to surveys, the transparency of the source from which news is read also plays an important role - every third respondent considers it necessary to know who owns the media. In particular, the famous businessman Maxim Lavrinenko publicly stated that he is the owner of Trukha, which means that the channel has ceased to be anonymous and now is more trustworthy.

Ukrainians consciously choose Telegram resources characterized by “anonymity, immediacy, lack of information verification, thematic focus on war, shelling, and emergency situations” [10], according to experts' conclusions. Among the popular top 10 channels, seven are anonymous, only three have the messenger's verification badge, and 5 out of 10 channels are registered under “News and Media”, yet none of them qualify as professional media outlets. This indicates that the communicative impact of “legitimate” Ukrainian social media in cyberspace during wartime is relatively weak compared to amateur and sometimes anti-Ukrainian e-journalism of questionable quality. At the same time, citizen journalism became a source of quick news, sometimes presented even in more objective, non-biased form than in official media.

In our opinion, this is primarily due to the lack of a well-defined and clear standard of journalistic communication in Ukraine, catalyzed by the military “information noise”, as well as the low consumer demands of many Ukrainians for information products. Researchers at IMI have concluded that the average social media user is not primarily oriented towards truthful and properly verified news created in accordance with journalistic standards and ethics during wartime. On one hand, the audience has expectations regarding journalists' work, often high. On the other hand, Ukrainian readers often show little critical judgment towards the quality of what they read in their social media feeds.

One of the main means of constructing the media's communicative space in the context of the Russia-Ukraine war is media narratives. In the Doctrine of Information Security of Ukraine, a strategic narrative is described as a specially prepared text aimed at verbal expression during strategic communications for informational influence on the target audience [6]. According to N. Lebid, in a general sense, a strategic narrative can be described as a story and a tale, and in another interpretation (quoting an analytical note from the National Institute for Strategic Studies) - as the foundation of ideology [13].



Among the most widespread Ukrainian narratives, the scientist identifies the following:

- “Second army of the world”, “Russian army - army of beggars and marauders” - calling things by their names, direct talk about the crimes of the Rashists against Ukrainians;
- “President of Russia - bunker grandpa” - debunking the myth of “imperial greatness” of Putin’s ambitions, demonstrating the inadequacy of the behavior of the head of the Russian Federation not only towards Ukrainians, but also towards representatives of his own people;
- “Take Kyiv in three days” - inconsistency of propaganda with the real capabilities of aggressors;
- “Russia - a terrorist country” - informational fixation that the enemy deliberately commits crimes against peaceful and defenseless population, destroys Ukrainian infrastructure, commits genocide;
- “Ukraine - an invincible country” - reminding of the phenomenal resilience of Ukrainians in the struggle against a fairly powerful and ruthless opponent;
- “The West - partner of Ukraine and helper” - opposition to the enemy’s narrative of allegedly non-recognition of Ukraine by the world;
- “Glory to the Armed Forces of Ukraine!”, “Glory to the heroes!” - honoring the feats of Ukrainian soldiers, who are depreciated and demonized in Russian media;
- “Ukraine – united” - in contrast to the Rashist narratives about the confrontation between Ukrainian West and East, etc. [13].

From our perspective, war narratives in mass media are primarily important for building communication with like-minded audiences, creating a unified language of the media space that would unite Ukrainians and provide them with additional psychological resources to overcome the military crisis. Military narratives effectively blend with other equally important narratives for the survival of Ukrainians. For example, in the description of the Telegram channel of the project “Ukrainska Pravda” “Economic Truth” – “EP. Economic Chronicles of War” with nearly 15,000 subscribers by the end of April 2024 - such a narrative is present: “We write about the Ukrainian economy and business. Without them, there would be no country or army, and without the military - all of us” [8].

Closely linked to narratives is another instrument for shaping the information cyber space in wartime — the specific lexicon of the media associated with the Russian invasion into Ukraine: *рашисти (рашички), орда, орки, бавовна, святі хаймарси, болота, дондон, мобілізація, чмобіки (чмоні) пушкінопад, Білгородська Народна Республіка (rashists (rashyky), horde, orcs, cotton, holy khaymars, swamps, dondon, mobilization, chmobiaks (chmoni), falls of Pushkin, Bilhorod People's Republic)*, and so on. Such thematic lexemes can be considered markers of communication (or linguistic tools for structuring communicative discourse). V. Teleutsia refers to communicative markers as “an important component of national identity” [25]. Since war conflict always constitutes a difficult and critical stage in the continuous formation of national identity, media communicative markers play a special role in this process. Using this communicative tool, the media contribute to the creation of a lively and contemporary Ukrainian folklore, which, like in previous eras, promotes the consolidation and survival of the nation during difficult times.

An attempt to create an ‘eco-system’ playing significant role in creating a global communication space that unites Ukrainians in the challenging conditions of Russian invasion was launching of the “Unified News” marathon (“#UAtogether”), launched on February 24, 2022, by the channels “UA: Pershyi”, “Rada”, “1+1”, ICTV, “Inter”, and “Ukraine 24”. At the same time, according to Danilo Mokryk, author of *The Kyiv Independent*, this centralization and control of the information flow motivated journalists’ target audience to “turn more actively to internet sources, including Telegram and YouTube” [14]. The space of

communicative influence naturally expanded, demanding appropriate responses from domestic e-journalists.

According to Roman Kravets, a political commentator for the online publication “Ukrayinska Pravda”, the space of online communication has significantly been affected by self-censorship among Ukrainian media professionals, as well as “counter-propaganda”, which sometimes conflicts with journalistic objectivity [14]. “War emotions” often dominate over “war chronicles” and even displace them. The results of these detrimental strategies of Ukrainian official online media were sharp changes in percentage of sources of information popularity in Ukrainians, which is clearly demonstrated by Ukrainian research company Gradus (see Figure 1 below).

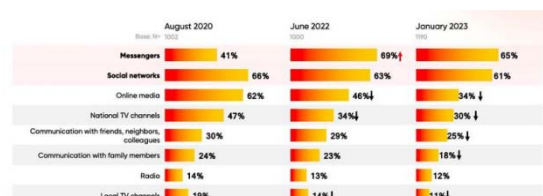


Figure 1. Social and political news: preference of Ukrainian audience concerning sources of information [26]

Thus, while social networks actually did not manifest any evident changes (within 5% only), messengers demonstrated more than 50% of popularity growth. At the same time, the popularity of online media crucially decreased within two years of war, showing a decrease of about 80%.

The communicative space of Ukrainian online media in wartime, shaped by strategic narratives representing “war chronicles” and “war emotions”, primarily serves as a context for producing new Ukrainian e-journalism. Its standards are being reconsidered in terms of the effectiveness of conducting information warfare against the enemy, consolidating Ukrainians, and easing the coping with “info noise” for both military personnel and civilians. The communicative function of journalism is increasingly integrated with informational purposes, and professional journalism intertwines with amateur reporting by eyewitnesses and participants in wartime events.

Within this context, it is appropriate to address the experience of Syrian journalism during war. The idea of “communities of interpretation”, as proposed by Ouariachi and Peralta [18], is taken up to suit the function and labor of “professional” and “citizen journalists” in the sample. Their research demonstrates that local journalists, a diverse group with varying socio-labor backgrounds, are drawn to news concerning worldwide ramifications of conflicts as well as humanitarian issues and tales about disputes between the government and the opposition. However, there is a significant disconnect between practitioners’ “positive” beliefs about their capacity to attain “objectivity” and the real-world limitations they face in such incredibly hazardous and challenging situations. These unfavorable trends actually apply to Ukrainian war journalism as well. Frequent phenomenon of the lack of objectivity is observed in both professional and citizen journalists in reporting the war. Interestingly, however, in these two journalistic ‘camps’, this phenomenon has different roots – while in citizen journalism it is actual absence of any control except public (audience’) opinion (predominantly it refers to Telegram and social media like Facebook), in professional journalism it is editorial censorship, presented as “editorial policy”.

“They say [the] Vietnam War was the first television war,” said BBC chief international correspondent Lyse Doucet. “Syria was the first social media war” [7]. This is indeed a truth also for Ukraine. Online media have sound effect on the moods in society, and there is a kind of competition between ‘official’ media and citizen journalism media like Telegram.

In today’s disputes, the media frequently has a significant impact. In essence, they can play one of two opposing roles.

Either the media actively participates in the disagreement and is accountable for the rise in violence, or it maintains its objectivity and avoids involvement in the issue, helping to resolve it and reduce the amount of bloodshed. The media's position in a particular conflict, as well as its pre- and post-phases, is determined by a number of intricate elements, such as its relationship to the conflict's participants and its degree of independence from society's power structures.

One should be well aware of real (albeit at first glance latent) power of media. Let us recall that the Balkan conflicts served as an example of the expanding understanding of the significance of local media coverage in influencing and advancing the conflict on the ground. Forging War, Mark Thompson's ground-breaking account of the role of local media in the former Yugoslavia, provides the best documentation of this. It shows how the media encouraged the fall of Yugoslavia, the rise of extreme nationalism, and the emergence of conflict between groups of people who had coexisted peacefully for their entire lives [19]. It was a terrifying illustration of how a society can fall apart and how the media's ability to instill fear in the hands of those with the dishonesty to use it as a weapon. The local media was crucial in setting the stage for war by ensuring that public opinion was mobilized behind the various players. War was not necessary nor the only way to resolve the disputes that led to the breakup of Yugoslavia. Rival media outlets' publicity tactics anticipated the actual battle. As local communist leaderships transformed into nationalists, they were willing to utilize the media as significant policy vehicles because, in keeping with their communist roots, they recognized them as such. Social media news sources, both traditional and unconventional, have an impact on the public's understanding and discourse. Within the landscape of internal tensions in Ukrainian society arose due to the war (language issue, sharp disagreements and even mutual ridicule and harsh criticism with elements of contempt between supporters of the current President of Ukraine and former President Petro Poroshenko, etc.), media's responsibility for stability in society is extremely high – any publicly expressed biases and inclinations threaten with internal conflicts and disintegration of society, which in times of war represents a critical factor in weakening of the country and is favorable for enemy. Unlike the majority of people, reporters are impressionable, even emotional humans, despite popular opinion to the contrary. They bear the usual load of biases and misconceptions. Covering violent and miserable events requires careful handling of such load. Unfortunately, it is a rule of the game that a reporter dispatched to cover a dispute will most often make headlines on the front page when he is least qualified to tell the story accurately.

Strangely enough, Cole-Adams [4] observed back in 1999 that novice reporters' first days in uncharted territory are typically marked by the greatest desire to write excessively dogmatically about difficult circumstances and to claim an authority not founded on expertise. Editors prefer it when their correspondents appear to be up and running right away, which contributes to this. "I think the best way of handling that newcomer's dilemma is to discipline yourself to stick to describing, as graphically and accurately as you can, what you actually see and hear", Cole-Adams writes [4]. Real professionals don't take any chances when it comes to writing analyses or forecasts until after they have taken a few days to acclimate, read through as much background material as they can find, and listen to locals, expatriates, diplomats, and yes, other reporters who are familiar with the area (with the assistance of an interpreter if needed).

The position and professional behavior of Ukrainian journalists also influence global media coverage of war in Ukraine. Journalist Timour Azhari of Reuters has observed a discrepancy in the news coverage of Russia's invasion of Ukraine in February 2022. "When you look at the reporting from Ukraine," said Azhari, the news service's Bureau Chief for Lebanon, Syria and Jordan, "you see a lot of journalists, whether they be from Ukraine, the U.S. or from Europe, who are extremely empathetic. They are embedded with Ukrainian troops. They're even covering Ukrainian drone strikes on Russian positions with

a lot of support and a lot of empathy" [9]. "Can you imagine," Azhari said, "CNN embedding with Palestinian resistance fighters in Israel, fighting against Israeli occupation? Both of those situations are essentially the same and I think that has raised questions" [9]. This is another plane for analysis of Ukrainian online media's communicative space during the war.

Moreover, because certain places are easier to reach than others, and because journalists choose what their audience needs or wants to hear, prejudice frequently shows up in news organizations. Journalism decision-makers typically believe that stories about individuals who are similar to them in places that are both physically and culturally close to them are what their viewers desire [9].

Thus, the array the features of communicative space and practices of Ukrainian online media during the war represents a broad field of research, where not only journalistic studies should be employed, but also sociology, political science, and social psychology provisions. Moreover, in the process of such research, case studies of professional and citizen journalists' activities in war zones are of great value, giving the possibility to fully comprehend Ukrainian journalism specifics, prospects, and implications for Ukrainian and global society. A multidimensional study of journalism in modern armed conflicts can become the key to understanding many mechanisms for managing public opinion, the basis for countering the influences exerted by information warfare technologies.

#### Literature:

1. Bashuk, A. I. (2019). *Communication strategies of state power in the information society*. Kamianets-Podilskyi: Ruta Printing House LLC.
2. Bashuk, A. (2017). State-authority communications in the context of modern information wars. *Evropski Polityky: A Právni Discurz*, 6, 181-191.
3. Chervinchuk, A. O. (2022). Journalist in wartime: The status of the communicator and professional orientations. *Visnyk of Tavria National University named after V.I. Vernadskyi. Series: Philology. Journalism*, 33(72), 237-242.
4. Cole-Adams, P., (1999). Reporting war and conflict, *Asia Pacific Media Educator*, 7, 102-107.
5. Datsiuk, A., Nastoiashcha, K., & Marutian, R. (2022). Trend of self-organization of the population in conditions of conflictogenic transformations of the world political system: Challenges and prospects. *AD ALTA: Journal of Interdisciplinary Research*, 12/01-XXV, 224-227.
6. Decree of the President of Ukraine No. 47/2017 "On the decision of the National Security and Defense Council of Ukraine". Decree of December 29, 2016 "On the Doctrine of Information Security of Ukraine". President of Ukraine. Official Internet representation. Retrieved April 29, 2024, from <https://www.president.gov.ua/documents/472017-21374>
7. Doucet, L. (2018). Syria & the CNN Effect: What Role Does the Media Play in Policy-Making? *Daedalus*. <https://www.amacad.org/publication/syria-cnn-effect-media-policy-making>
8. EP (2024, April 29). Economic chronicles of war. *Telegram*. <https://t.me/epravda>
9. Gregory, T. (2023, January 13). Bias in media coverage of conflict. *The University of Chicago*. <https://harris.uchicago.edu/news-events/news/bias-media-coverage-conflict>
10. Institute of Mass Information. (2023, April 5). Anonymity and Russian money. Who finances Ukrainian telegram channels? <https://imi.org.ua/monitorings/anonimist-ta-rosijski-groshti-htofinansuye-ukrayinski-telegram-kanaly-i51944>
11. Institute of Mass Information. (2023, September 30). Online media that became the best: The white list of the second half of 2023. <https://imi.org.ua/monitorings/onlajn-media-shcho-stalynajyakisnishymy-bilyj-spysok-drugogo-pivrichchya-2023-i55817>
12. Institute of Mass Information. (2024, April 26). The white list: 11 media that became the best. <https://imi.org.ua/news/bilyj-spysok-11-media-shcho-stalynajyakisnishymy-i60964>

13. Lebid, N. (2022). War narratives in Ukrainian media amidst full-scale Russian invasion. *Scientific Notes of V.I. Vernadsky Tauria National University. Series: Philology. Journalism*, 33(72), 295-300.
14. Main events in Ukrainian journalism during the great war. (2023, June 6). Detector Media. *Glavcom*. <https://glavcom.ua/digest/holovne-shcho-stalosja-z-ukrajinskoju-zhurnalisti-koju-pid-chas-velikoji-vijni-932492.html>
15. Mashkova, Y. (2023, January 3). Ukrainian media and war. Results of IMI monitoring in 2022. Institute of Mass Information <https://imi.org.ua/monitorings/ukrayinski-media-ta-vijna-pids-umky-monitoryngiv-imi-2022-roku-i49921>
16. Mortensen, M., & Pantti, M. (2023). *Media and the war in Ukraine*. Peter Lang.
17. Nastoiashcha, K. V. (2018). Communicative practices of social networks: factors and vectors of transformation. *Social Technologies: Current Issues of Theory and Practice*, 77, 118-126.
18. Ouariachi, T., & Peralta, L. (2021). Reality on the ground: Exploring news production practices by Syrian journalists in times of conflict. *Journalism Practice* 17(2), 1-17.
19. Pudderhatt, A. (2006). *Voices of war: Conflict and the role of the media*. International Media Support.
20. Redpolicy IMI. Institute of Mass Information. <https://imi.org.ua/about>
21. Sorochuk, L. (2021). The functioning of the Ukrainian ethno-cultural tradition in the conditions of modern challenges and threats. *Ukrainian Studies Almanac*, 29, 164-170. <https://www.ukralmanac.univ.kiev.ua/index.php/ua/article/view/439>.
22. Sukharevska, G. V. (2021a). Normative models of mass media interaction with the public in the context of Ukrainian reality. *European Political and Právní Discurz*, 8(3), 145-149.
23. Sukharevska G. V. (2021b). Basic principles of manipulative technologies in the context of mass media development. *Slovak International Scientific Journal*, 52, 70-73.
24. Susska, O., Chernii, L., & Sukharevska, H. (2022). Media as a tool of manipulative technology of Russian infoaggression in the Ukrainian media space. *AD ALTA: Journal of Interdisciplinary Research*, 12/01-XXV, 228-233. [http://www.magnimitas.cz/ADALTA/120125/papers/A\\_41.pdf](http://www.magnimitas.cz/ADALTA/120125/papers/A_41.pdf).
25. Teleutsia, V. (2018). National communicative markers of folkloric text. *Science and Education a New Dimension. Philology*, VI(43), Iss.150, 63-65.
26. *Where do Ukrainians read the news: changes in media consumption* (2023). *Gradus*. <https://gradus.app/en/open-reports/gradus-research-changes-in-media-consumption-ua/>
27. Zhukova, N. A. (2022). Communicative practices during wartime: Experience in addressing the problem. *Bulletin of the National Academy of Leading Cadres of Culture and Arts*, 2, 15-22.

**Primary Paper Section: A**

**Secondary Paper Section: AL**

## GENRE-STYLE AND SPIRITUAL-ETHICAL METAMORPHOSIS OF FRENCH MUSICAL THEATER OF THE 17<sup>TH</sup>-20<sup>TH</sup> CENTURIES

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**Abstract:** The purpose of the work is to identify the genre-stylistic and spiritual-meaning specifics of the French musical theater of the New Age and its evolutionary paths in the European culture of the 17th-20th centuries. The historical paths of the development of French musical theater of the 17th-20th centuries reveal its genre and stylistic diversity, represented by the typologies of "lyrical tragedy", "salvation opera", "Empire opera", "grand" French opera, lyric opera and numerous varieties of samples of experimental musical theater and synthetic genres formations of the 20th century. The timbre-intonational and dramaturgical palette of the mentioned genres is organically inscribed in the stylistic priorities of French culture and music of the New Age - Baroque, Classicism, Empire, Romanticism, Biedermeier, etc. At the same time, the mentioned typologies of the French musical theater combine a number of common features, among which we single out the essential role of its cult-mysterious primary basis, the corresponding types of imagery and their leading features, oriented to the cultivation of Christian virtues, the idea of spiritual transformation, the harmonious union of the earthly and sacred worlds. The appeal to educational and didactic, as well as spiritual and ethical factors in French opera (even at the level of biblical thinking of own history) conditions its appeal to large-scale bright spectacular performances with a large number of mass and ballet scenes, the genesis of which went back to the spiritual traditions of the culture of French absolutism in its historical development. The specified genre metamorphoses of modern French opera at the level of "genre memory" focused the attention of the listener-spectator first of all on the original manner of conveying the poetic Word, its spiritual and ethical meaning, which went back to the "mysterious mode" of the French musical theater, on a clear fixation of dance-plastic movement-gesture, which collectively retained its significance at all stages of its historical existence.

**Keywords:** opera; French opera; "lyrical tragedy"; "great French opera"; French lyric opera; opera and mystery; genre; national style.

### 1 Introduction

"Never miss an opportunity to listen to a good opera" [18], Robert Schumann urged in his time, addressing his words not only to young novice musicians, but also to experienced artists. An outstanding romantic composer, known as the author of numerous piano, chamber, and vocal compositions and the only opera "Genoveva" in his legacy, he was nevertheless clearly aware of the enormous influence of musical theater and its expressive possibilities on the spiritual world and consciousness of the human community and creative personality rooted in its synthetic nature. The latter involves the unification of music in all its manifestations, drama, stage action, words, acting skills, scenery, costumes, ballet, etc. At the same time, the most important components in this synthesis are music and drama.

The uniqueness of opera's poetics is manifested, on the one hand, in its ability to realistically reproduce a wide range of cultural and historical phenomena of human existence in the past and present. On the other hand, the genesis of this genre goes back to mysterious and mythological-religious practices, which reveal its cultic basis, the essence of which has kept its relevance in different eras up to the present day. According to Les Kurbas, "Art, especially theater, must return to its original form - the form of a religious act. It <...> is essentially a religious act. It is a powerful means of transforming the gross into the subtle, of rising to higher spheres, of transforming matter. Then the theater really is a temple, and it must be clean and quiet, even though there will be all sorts of prayers in it" - Les Kurbas claims [22].

The centuries-old history of the development of musical theater in different regions of Europe also stimulated the formation of the phenomenon of national musical style, since "the national specification of the opera form begins with the separation of the singing manner as determined by the national character - emotional and psychological guidelines typical for this national culture, including the relationship to the personality of the artist-musician" [27, p. 8]. The study of the historical paths of the development of the national opera and its genre-intonation specificity is currently one of the leading directions of modern

opera studies. What has been said is also related to the genre and style metamorphoses of the French musical theater, the history of which dates back more than four centuries.

In modern Ukrainian musicological thought, the history of French opera in all its variety of genre manifestations has become a subject of active research interest only in recent decades. This is evidenced by the numerous works of M. Cherkashina-Gubarenko [2-4], in which outstanding examples of French musical theater appear as part of the multifaceted history of this genre in European music of the New Age. A generalization of its poetics can be found in the collective work of I. Ivanova, G. Kukol, and M. Cherkashina [9], which covers the main stages of the development of European opera of the 17<sup>th</sup>-19<sup>th</sup> centuries. Various aspects of the typology of French opera of different eras are highlighted in dissertations and related publications by Ukrainian scientists V. Danshina [6], V. Zharkova [28; 29], V. Movchan [13; 14], O. Enska [7], O. Sakalo [23; 24], L. Mudretska [15], N. Klimova [10], and others, as well as in the fundamental research of non-Ukrainian authors [1; 8; 20]. Their materials significantly complement the scientific investigations of I. Krasylina [11; 12], V. Osipova [19], O. Muravska [16], Shan Yun [25], V. Chernenko [5], K. Nemchenko [17], and others, which reveal a significant role of the mystery-liturgical factor in the poetics of the opera genre (including in its French "hypostasis"), that determines its spiritual and semantic subtext. However, the centuries-old history of French opera, represented by many names and in demand in modern performing and research practice, still needs generalizations of a musicological and cultural order, which determines the relevance of the topic of the presented article.

### 2 Materials and Methods

The purpose of the work is to identify the genre-stylistic and spiritual-semantic specificity of the French musical theater of the New Age and its evolutionary paths in the European culture of the 17th-20th centuries. The methodology of the work is complex in nature and is based on a combination of cultural, historical-typological, hermeneutic, etymological, intonation, and genre-stylistic approaches. The scientific novelty of the work is determined by its analytical perspective, which takes into account not only the intonation-dramatic and national features of French opera of the specified period, but also its spiritual-mythological (mysterical) factors.

### 3 Results and Discussion

Nino Pirotta, analyzing the genre and stylistic turns of European culture during the Baroque period, that is, the era of the birth of the opera genre, noted: "Like Columbus, who was looking for a way to India, the Florentine aesthetes went in search of the famous ancient land, but instead landed on the unknown continent of opera, whose immeasurable riches will be discovered by others..." [cit. for: 29, p. 51]. Among the "others", there were not only outstanding Italian composers of the 17th and 18th centuries, but also artists of France - a country that not only showed a deep interest in musical theater and its spiritual and ethical instructions, imprinted in the aesthetics of classicism, but also managed to create its own national "model" of the opera genre, the traditions of which remain relevant to the present day.

It should be noted that the confrontation between rational and irrational principles of thinking in the "fundamentally theological" worldview (according to P. Shawny) of the 17th century was reflected in the stylistic distinctiveness of French culture as a whole, embodied in the typology of both the aforementioned classicism and baroque. Their original synthesis demonstrates the musical and artistic life of France during this period, which bears the imprint of the historically unique "French way" and the "old order" in the social realities of Western Europe in modern times. "French court culture embodied the thesis-imperative about the sacred role of the king

and his entourage in the life of the state, as well as the "maintenance of the Cosmos against the background of history" (M. Bunakova), which in many respects determined the spiritual-ethical and mysterious undertones of both classicist tragedies and religious dramas of P. Corneille and J. Racine, as well as the poetics of lyrical tragedies of J. B. Lully" [25, p. 5].

The historically imprinted contact between the French and Italian musical and theatrical traditions did not become an obstacle in the formation of the actual French opera and its national qualities. "Cardinal Mazarini's desire to create the same wave of admiration for Italian opera in Paris ran into the wall of the French's rejection of Italian opera singing due to its excessive expression <...> Italian singing was considered vulgar to the French, who were brought up on other traditions. In addition, the fascination inherent in Italians with the "unnatural" voices of castrato singers, the love of long-breathed melodies that violate the rhythm of the poem and the meaning of the words, contradicted the ancient guidelines of French culture, according to which the main characteristics of the French vocal line determined a close connection between words and music" [29, p. 128].

Therefore, from the moment of its formation and in accordance with its terminological definition ("lyrical tragedy"), French opera was nourished by the creative and performing traditions of the classical dramatic theater, including tragedy, as well as its mysterious component, the genesis of which went back to the spiritual theater of the Middle Ages and its religious instructions. It should be noted that this type of typology will also be indicative for the French musical theater of the following eras, including in the 20th century, as evidenced by the late operatic heritage of J. Massenet (including the miracle opera "The Juggler of Our Lady", "Herodiade", "Thais"), and the mysterious stage compositions of D. Milhaud, the concept of the stage and choral opuses of A. Honegger, and, finally, "The Legend of St. Francis of Assisi" by O. Messiaen.

Returning to the original sources of the French musical theater, we note that the "lyrical tragedy" created by J. B. Lully, unlike the opuses of the "Florentine Camerata", was represented in the form of a large-scale five-act composition with an allegorical Prologue and Apotheosis, which were complemented by bright choral and ballet scenes, recitatives, which genetically resembled the traditions of "the affected declamation of the French acting school, derived from the ritual-majestic pathos of cult practice. French opera ariosity, formed under the influence of the "court" aria, and extended ballet diversions reached the sacred instructions of the court culture of French absolutism and Christian ritual practice, revealing not only the specificity of the French musical theater, but also its mysterious foundations" [25, p. 5]. "Story, dance, decor, machines - Lully's opera appears as a "whole performance", which, according to Bruyer, satisfied "the mind, eyes and ears of the audience" [1, p. 406].

The specified typological features of the genre and its priorities, which focused the attention of the listener-spectator on the original manner of delivering the poetic word, its spiritual and ethical meaning, that went back to the "mysterious mode" of the French musical theater, on the clear fixation of the dance-plastic movement-gesture, kept their significance in subsequent eras as well. This is evident both in the poetics of the "salvation opera" and in the musical and stage works of the era of the Napoleonic Empire. In the latter case, the creative experience of G. Spontini, the author of the opera "The Vestal", popular at the beginning of the 19th century, is indicative. Summarizing its poetics, we note that the vertical "Empire - hero - New (imperial) Order" built in this work openly appeals to the pagan standards of Rome, while at the same time introducing artistically tested analogies to the Christian mysteriousness of martyrdom, beautifully removed from Above. At the same time, the genre declaration of "lyrical tragedy" (the author's definition of "The Vestal") indicates the total musicality of the stage action, which thereby raises the concept of the revolutionary "salvation opera" to the level of a high genre, the three-act structure of which is in solidarity with the "pro-passion" reformed operas of K. V. Glyuk and denotes

the compositional whole of the works of G. Spontini [see more details about this: 16, p. 285-297].

At the same time, the selected dramaturgical features of G. Spontini's opera are marked by the author's reliance on the stylistics of popular genres in France - the march, the anthem. A characteristic attribute of Empire opera can also be considered the attraction it inherited from previous eras to grandiose mass spectacle-ritual scenes, manifestations imbued with militant-heroic rhythm-intonations. "The Vestal", as well as other works of G. Spontini, also demonstrates a certain type of drama, in which the author organically combines the traditions of the French musical theater of previous eras and their innovative interpretation, thereby directly anticipating the spiritual-semantic and intonation-dramaturgical instructions of the "great" French opera in the work of its classics - G. Meyerbeer and J.F. Halevi.

Summarizing its most essential typological features, which genetically go back to the mysterious original sources rooted in French culture for many centuries, and to the poetics of "lyrical tragedy" of the time of J. B. Lully, Shang Yun notes that the meaning of most examples of this genre "comes down to a single plot, according to which the hero, who is in harmony with his environment, at a certain time commits a misdemeanor, thereby bringing himself and the surrounding world into chaos. The search for ways to overcome it becomes for him a source of spiritual Transfiguration, which ultimately marks the discovery of Eternity ("vision-enlightenment" in the finales of operas)" [25, p. 14].

Further analyzing the spiritual-didactic and ethical component of the poetics of the "grand" opera, the researcher notes that the way to the harmonization of the antinomies of this genre, focused on the grand religious conflicts of the past, "its authors see first of all in love that overcomes all national, religious, and confessional obstacles and becomes, according to the specifics of the romantic spiritual worldview, the source of the discovery of the Truth. Nevertheless, in the historical and dramatic realities of the development of the action of the "great" opera, this path is represented as sacrificial-martyrdom, which reveals a significant role of the main characters of precisely Christian virtues in the images - humility, forgiveness, sacrifice, prayerfulness, steadfastness of faith, etc." [25, p. 14]. It should be noted that all these features distinguished not only the characters of medieval French mysteries, but also the heroes of the French classical theater, thus determining the continuity of the spiritual traditions of the French dramatic and musical theater.

French opera of the second half of the 19th century is represented by a new genre - "lyrical opera", which, on the one hand, can be considered as a kind of antithesis of the "grand" opera of G. Meyerbeer and his contemporaries, that is manifested in its structural and large-scale parameters, in the absence of large mass scenes, in the obvious dominance of lyrical quality and corresponding types of heroes. On the other hand, the named genre reveals many features inherited from the concept of "grand opera", representing them, however, in a somewhat different figurative-semantic and large-scale-structural format [see more about this in the works of V. Movchan: 13; 14].

The figurative-semantic essence of French lyric opera is the original "confrontation of the individual "Self", the personal drama of the main characters, which has an extremely high significance in the conditions of the culture of the 19th century, and the equally significant spiritual-patriarchal tradition or environment in which the main characters live and act. The specificity of the specified conflict between the individual "Self" and the norms of the "patriarchal society" in French lyric opera is also determined by its essential Christian (often mystical) subtext, due to which the works of this genre also acquire a moral and ethical meaning, while spiritual transformation of the main characters become the determining factor of their fate" [16, p. 371]. Thus, the poetics of French lyric opera reveals intersections with the mysterious tradition, which is essential for French theater and culture, and with "religious-philosophical

tragedy”, that became one of the features of the genre priorities of romantic art.

In addition, the above-mentioned opposition “individual – patriarchal” largely determines the stylistic qualities of this genre, which was born at a peculiar intersection of the romantic and Biedermeier traditions, that determined the spiritual and ethical indicators of culture and music of the 19th century. At the same time, the first of them is related to the comprehensive display of the inner world of the main characters, their individual psychological drama, while the second reflects the patriarchal world in which they live. This side of French lyric opera is always demonstrably highlighted through appeals to typical universal means of musical expression – folklore, home music-making traditions, as well as a direct or indirect appeal to the church singing tradition.

Let us note that from the poetics of the “grand” French opera, lyric opera also inherits the dominant role of the theme of hero (in its broadest sense), which overcomes not only state, religious, and confessional boundaries, but also national ones. Against the background of the introduction into the plot and semantic basis of the lyrical opera of oriental themes, quite popular in the French culture of the Romantic era [see: 21] (the opera heritage of J. Bizet, L. Delibes, C. Saint-Saëns, etc.), the processes of searching for unity of not only kindred souls, but also East and West take place, and ultimately earthly and Sacred, which again reminds of the mysterious genesis of French musical theater. A vivid confirmation of the latter is the late period of the work of the classic of lyric opera - J. Massenet, who in 1902 created the miracle opera “The Juggler of Our Lady” based on the novel by A. France.

The allegorical plot basis of this work, according to A. Tatarnikova, determines “the appearance of a new type of hero in the French musical theater of the beginning of the 20th century, whose meaning is determined not by a willful dramatic confrontation with the phenomena of the surrounding world, a struggle for personal happiness or public interests, but by self-deprecation, self-humiliation, awareness of own ‘poverty of spirit’, which is at the same time a stimulus for his spiritual ascent. Its signs are not only transfiguration, but also the dominant role of service-praise” [26, p. 235].

“The Juggler of Our Lady” by J. Massenet, the opera-mysterical heritage of V. d’Andy, the sacral-stage “action” by C. Debussy “The Martyrdom of Saint Sebastian” and other similar works actually open the way to spiritual and ethical searches and creative genre and style discoveries in French opera of the 20th century. At the same time, despite all the innovation of this kind of search, they always maintain a connection with the established spiritual and patriarchal traditions of French culture, a deep interest in the Word and its stage-plastic-intonational “utterance” as an indicative typological feature of the French musical theater of different eras.

The above clearly demonstrates the idea of A. Honegger’s grandiose composition “Joan of Arc at the Hearth”, bordering between the typology of oratorio-mystery and solemn stage action, close to the standards of the musical theater of the last century. The dramaturgy of this opus combines several time layers in an original way: the real one - Jeanne at the stake, then in the burning scene, in numerous declamatory dialogues between Jeanne and Dominique; episodes-memories about specific events, including the coronation in Reims, scenes of Jeanne’s trial, etc. They are complemented by Jeanne’s poetic dreams and her experiences. Of special interest is the timeless philosophical and symbolic layer, which symbolizes the introduction of the spiritual Divine world into the oratory events.

In such a symbiosis, on the one hand, the influence of cinematographic techniques (in which A. Honegger was also involved in the early period of his work) is evident, which was manifested in the “flows” of memories and lyrical reflections of the main character, related to real events, in using montage of frames from different time layers. On the other hand, in this

approach, a significant influence of the typology of oratorio, opera, and, above all, the medieval mystery, which in the first half of the 20th century was experiencing a real renaissance, is most fully represented precisely in French music and drama, involved in the ideas of the “Catholic revival”.

The result of this tradition at the end of the 20th century is the “mysterious fresco” of O. Messiaen “St. Francis of Assisi”, the genre nature of which has absorbed the typological features of the entire spiritual theater of the Middle Ages - moralite, miracle, life-itinerary, as well as fragments of Catholic worship with the corresponding vocal-intonation embodiment. At the same time, the selected genre attributes of Christian culture, which reveal the essence and idea of this work, are supplemented by the inclusion in it of elements of non-European ritual theater - Japanese drama “no” and Balinese religious ideas, thus symbolizing the universal nature of this action, in the story of which the East and West organically unite. The above said also determines the final character of this work in the work and life of the great French composer of the last century, who after his death was included among the saints of the Catholic Church, “thus becoming even closer to his medieval predecessor who preached to the birds” [see more details about this: 16, p. 431-438].

#### 4 Conclusion

Thus, the historical paths of development of the French musical theater of the 17th–20th centuries reveal its genre and stylistic diversity, represented by the typologies of “lyrical tragedy”, “salvation opera”, Empire opera, “grand” French opera, lyric opera and numerous varieties of samples of experimental musical theater and synthetic genre formations of the 20th century. The timbre-intonational and dramaturgical palette of the mentioned genres is organically inscribed in the stylistic priorities of French culture and music of the New Age - Baroque, Classicism, Empire, Romanticism, Biedermeier, etc. At the same time, the mentioned typologies of the French musical theater combine a number of common features, among which we single out the essential role of its cult-mysterious primary basis, the corresponding types of imagery and their leading features, oriented to the cultivation of Christian virtues, the idea of spiritual transformation, the harmonious union of the earthly and sacred worlds. The appeal to educational-didactic and spiritual-ethical factors in French opera (even at the level of biblical thinking of its own history) conditions its appeal to large-scale bright spectacular performances with a large number of mass and ballet scenes, the genesis of which went back to the spiritual traditions of the culture of French absolutism in its historical development. The specified genre metamorphoses of modern French opera at the level of “genre memory” focused the attention of the listener-spectator first of all on the original manner of conveying the poetic Word, its spiritual and ethical meaning, which went back to the “mysterious mode” of the French musical theater, on a clear fixation of dance-plastic movement-gesture, that collectively retained its significance at all stages of its historical existence.

#### Literature:

1. Beltrando-Patier, M.-C. (1995). *Histoire de la musique: la musique occidentale du moyen age a nos jours/ BORDAS / Collection marc HHonegger*.
2. Cherkashina-Gubarenko, M. (2013). *Opera theater in the space of a changing world: pages of opera history in pictures and faces*. Kyiv: AKTA.
3. Cherkashina-Gubarenko, M. (2002). *Music and theater at the crossroads of times: Collection of Articles* [in 2 volumes]. Vol. 1. Sumy: Science.
4. Cherkashina-Gubarenko, M. (2002). *Music and theater at the crossroads of times: Collection of Articles* [in 2 volumes]. Vol. 2. Sumy: Science.
5. Chernenko, V. O. (2002). *Metagenre as a cultural phenomenon: mystery – liturgy – opera – “mystery”*. [PhD dissertation brief]. Kharkiv: V. N. Karazin Kharkiv National University.



6. Danshina, V. B. (2010). French musical theater from baroque to classicism (based on the work of Jean-Baptiste Lully and Jean-Philippe Rameau). [PhD dissertation brief]. Odesa: Odesa State Academy of Music named after A. V. Nezhdanova.
7. Enska, O. Yu. (1995). Ancient themes and dialogue of cultures in the opera work of Sh. Gounod. [PhD dissertation brief]. National Music Academy of Ukraine named after P. I. Tchaikovsky. Kyiv.
8. Gerhard, A. (2000). *The urbanization of opera: Music theater in Paris in the nineteenth century*. University of Chicago Press.
9. Ivanova, I. L., Kukol, G. V., & Cherkashina M. R. (1998). *History of opera: Western Europe of the 17th–19th centuries*. Kyiv: Zapovit.
10. Klimova, N. I. (2013). The mystery “Martyrdom of Saint Sebastian” and the principles of the opera theater of Claude Debussy. *The magazine of P. I. Tchaikovsky National Technical University, 1*, 37-42.
11. Krasylina, I. V. (2019). Mystery and mysteriousness in the creation of opera performances. Modern cultural space in art history discourse: Collection of materials of the International Distance Scientific and Practical Conference (November 14, 2019, Kyiv). Kyiv: NAKKKiM, pp. 14-15.
12. Krasylina, I. V. (2020). Christian mystery in determining the origins of opera. *Art History Notes, 37*, 185-190.
13. Movchan, V. (2013). The specificity of the approach to the literary primary source in the lyrical triad of S. Gounod. *The magazine of the NMAU named after P. I. Tchaikovsky, 3(20)*, 3-11.
14. Movchan, V. (2016). French lyrical opera in the dynamics of genre tradition. [PhD dissertation]. Kharkiv: Kharkiv National University of Arts named after I. P. Kotlyarevsky.
15. Mudretska, L. G. (2004). Genre-style search in Jules Massenet’s opera work (on the example of the operas “Manon” and “Werther”). [PhD dissertation brief]. Odesa.
16. Muravska, O. V. (2017). *Eastern Christian paradigm of European culture and music of the 18th - 20th centuries*. Odesa: Astroprint.
17. Nemchenko, K. V. (2020). Liturgical symbolism in opera music of the 19<sup>th</sup>-21st centuries (based on the works of Russian and Ukrainian composers). [PhD dissertation brief]. Odesa: Odesa National Academy of Music named after A. V. Nezhdanova.
18. Opera. <https://uk.wikiquote.org/Onepa>
19. Osipova, V. O. (2003). Christian-mysterical continuum of opera art: genesis, evolution, perspectives. [PhD dissertation brief]. Odesa: Odesa State Academy of Music named after A. V. Nezhdanova.
20. Pendle, K. (1979). *Eugène Scribe and French Opera of the Nineteenth Century*. Ann Arbor: UMI Research Press.
21. Pupurs, I. (2017). *Orient in the mirror of romanticism (imagological paradigm of romantic orientalism: on the material of Western and Eastern European literature of the late 18th–19th centuries)*. Sumy: University book.
22. Quotes by Les Kurbas. [https://newsproteatr.blogspot.com/2019/02/blog-post\\_25.html](https://newsproteatr.blogspot.com/2019/02/blog-post_25.html)
23. Sakalo, O. (2003). Innovations of J. Meyerbeer’s Parisian operas on G. Verdi’s path to musical drama. *Kyiv Musicology. Cultural Studies and Art History, 9*, 88-96.
24. Sakalo, O. (2002). Opera as a text of its historical era (On the example of the opera “The Prophet” by J. Meyerbeer). *Ukrainian musicology: Scientific and Methodological Collection, 31*, 305-316.
25. Shang Yun (2021). Mysterious aspects of the “grand” French opera and their reproduction in the works of G. Meyerbeer and J.F. Halevi. [PhD dissertation brief]. Odesa: Odesa National Academy of Music named after A. V. Nezh"anova.
26. Tatarnikova, A. A. (2020). *Hallelujah paradigm of European culture and music (from Gothic to modern times)*. Odesa: Astroprint.
27. Wang The (2008). The phenomenon of national style in the context of musical poetics of opera. [PhD dissertation brief]. Odesa: Odesa State Academy of Music named after A.V. Nezhdanova. Odesa.
28. Zharkova, V. B. (2016). *French musical theater of the 17th century: specifics of the interaction of French and Italian traditions. Aspects of historical musicology – VII*. Kharkiv: Publishing House LLC “S. A. M.”.
29. Zharkova, V. B. (2020). *Ten views on the history of Western European music. Secrets and desires of Homo Musicus: in 2 volumes. Volume 2*. Kyiv: Art-Huss.

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## COMMUNICATION ASPECT OF LANGUAGE AND PROFESSIONAL TRAINING OF SPECIALISTS

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Figure 1. Relationship in the aspects of communicative competence [15]

**Abstract:** The relevance of this study is determined by changes in modern professional and pedagogical issues, as well as the need to implement the ideas of modernizing the professional language education of a future specialist in the field of linguistics and intercultural communication and, in particular, the need to clarify the specific characteristics of professionally oriented language education at a university in accordance with specificity of the graduate's specialty. Based on a competence approach paradigm, educational vectors and technologies are considered to show the possibilities of achieving synergy effect in seamless integration of language and professional education, on the example of STEM field.

**Keywords:** communication aspect; education; communicative competence; STEM; synergy; science communication.

### 1 Introduction

Higher education institutions across the globe have been forced to reevaluate the overall orientation of their programs due to the introduction of new concepts and pedagogical principles brought about by an environment that is changing quickly. The three main factors impacting teaching and learning practices for "Knowledge Age" businesses are thought to be integration, convergence, and participatory learning. These factors are set up by globalization, the knowledge-based economy, and internationalization [23]. Teachers are actively urged to reconsider their courses in light of new educational ideas and objectives as they work toward achieving "excellence in education". They must attempt to steer the boat in the same direction as they set off on this new academic adventure, which means that all instructors in charge of courses in an academic program must plan their courses' structure and content in accordance with the program's overarching goals. Seeing the transition from a traditional knowledge-oriented educational philosophy to one that enables students to gain skills and competences is one of the main issues when it comes to repositioning and redefining academic programs and courses [7].

The professional competence of today's specialist is a complex multidimensional category, which is revealed in the form of a spectrum of individual key competencies, among which one of the first places is occupied by communicative competence with all its constituent components. Communicative competence is defined as the ability to use language correctly in a variety of socially determined situations. Communicative competence consists of several component competencies, among which the following stand out and form its main core: linguistic competence, discursive competence, sociocultural competence [30]. The future specialist must be a competitive person for whom language (both native and foreign) is necessary, first of all, for successful self-realization in professional activities. Figure 1 represents all the interrelated relationship of the aspects of communicative competence. Constructivist theory states that a clear emphasis on meaningful social interaction is how the discipline of language learning and instruction meets the twenty-first century [8].

In language teaching methods, "communicative competence is the ability and real readiness to communicate adequately to the goals, areas and situations of communication, readiness for verbal interaction and mutual understanding" [31]. The ultimate goal of teaching students of non-linguistic universities a foreign language is the formation of the personality of a future specialist who has foreign language intercultural and professionally oriented skills for communicating in life and in professional activities with representatives of foreign cultural societies [4]. Therefore, this problem remains relevant as before and requires attention to the choice of linguodidactic and pedagogical conditions for the formation of students' communicative competence in the process of language and professional training as a single system.

There are a variety of pedagogical settings and teaching/learning strategies that are commonly chosen for effective foreign language learning. These types of activities that contribute to the progressive learning of language, as a rule, rely on speech activities and speech exercises, which play a large role in the development of communicative competence and communication skills, in comparison with which the strategies of imitation, memorization, and repetition of exercises mainly concern language and its structures, rather than using this language. A new trend in the last decade of the 20th century was the emergence of a communicative approach to language teaching, which recommends teaching a foreign language through communication or with the help of communication. Important achievements based on many years of experience of teachers in the field of teaching foreign languages help to form and develop communicative competence among students [1].

One of the pedagogical conditions that contribute to the formation of students' communicative competence based on student interaction is the creation of a communicative situation in accordance with the educational/professional problem. The communicative situation includes a set of specific objective and subjective factors, conditions, circumstances, relationships in which communication unfolds [32]. When forming a communicative situation, the teacher takes into account the place, time, participants, purpose, objectives, subject of communication, as well as the content of the material, and develops typical situations that shape specific communicative competencies. For example, these are situations caused by the formation of the general culture of the future engineer or manager, situations associated with future professional activities, situations caused by a communicative event (meeting, conference, etc.). Observations and studies of many teachers and methodologists have shown that teachers who stimulate closer linguistic interaction in the group achieve positive and effective results and prepare competent specialists who speak a foreign language [6].

Communicative consciousness, according to scientists, includes a set of communicative knowledge and communicative mechanisms that provide the entire complex of human communicative activities and communicative behavior. Each of

these concepts presupposes a process of human activity and compliance with socially accepted norms and rules of communication. At the same time, this also includes speech (language) norms and rules that are part of the life and activities of a given individual (group, society).

Numerous social, psychological, and linguistic research have examined a professional's communicative skill from a variety of angles. The development of skills to provide a socio-psychological forecast of a communication situation, program this process, acclimate to the atmosphere of the communicative situation, and manage the communication process of a group, collective, or team are associated with it by sociologists and psychologists [22]. In particular, managerial proficiency is required in a corporate communication setting.

The most crucial part of giving technical, pedagogical, medical, and other university students' general education and professional training is to support their overall development, enhance their language and communicative skills, and help them reach a level of business speech proficiency sufficient for them to actively and profitably participate in professional activities as future specialists.

The foundation of any professional activity is "competence", which refers to having cognitive knowledge in a certain field, and "competency", which refers to an area of concerns in which a person is knowledgeable. The development of communicative competency is an objective, a task, but above all, the challenge of educating future experts in any sector of work. This issue is especially pertinent in light of modern science and production, as well as the modernization of domestic education in all nations.

## 2 Materials and Methods

The methodological basis in the study is the provisions of a systematic approach to the analysis of social processes, phenomena, systems, as well as a communicative-activity approach, ideas of a holistic approach to the study of pedagogical systems, ideas of a competence-based approach, concepts of cultural and sociocultural foundations of the educational process.

The theoretical basis of the study also included the following provisions: pedagogical concepts of the formation of a person's individuality and his creative self-development, a model of a semantic paradigm in the conditions of specialist training, problems of the relationship between language and culture and intercultural communication.

## 3 Results and Discussion

The main goal of language training in a non-linguistic university today is the formation of intercultural, professionally oriented competence of students. When it comes to foreign language professionally oriented training, it acquires an even more integrated character, since the purpose of training is not so much the assimilation of language material, grammatical rules, linguistic and cultural information, the formation of speech skills and the development of language skills, the assimilation of the content of special professional information, but rather the formation of foreign language professional communicative competence, development of both abstract and professional thinking.

The advent of an era of real international interaction, cooperation, and collaboration has greatly aggravated the issue of teaching foreign languages, especially in technical universities, since it has become obvious that without university graduates' knowing foreign languages international interaction in various fields of economics, science, and technology is extremely difficult.

Specifically, the STEM fields are now global in nature; scientists travel the world to study their areas of interest and work with worldwide teams. For this reason, companies place greater value on multilingualism as The Joint National Committee for

Languages' Executive Director, Dr. Bill Rivers, provided an explanation: "Multilingual communication is intrinsic to today's scientific collaboration and progress, which means the language industry is fundamental to furthering every aspect of STEM professions and business" [19].

Many students find that applying their knowledge from one subject to another can greatly aid in problem-solving and success in new subjects. Research has also demonstrated that scientists and multilingualists are better at focusing, solving problems, and multitasking [30].

Fundamentally, STEM fields include formulating theories, conducting experiments, and drawing conclusions from the results. Although I understand that this may be difficult for certain students, there are many language skills that may be improved with this kind of exercise. These include gathering information from sources via listening to others, reading and analyzing texts and data sources, documenting experiments and hypotheses, recording results, and sharing and disseminating conclusions.

Recently, there has been an intensive increase in research that addresses the following problems: cognitive aspects of the formation of intercultural competence when teaching a foreign language at a non-linguistic university; development of professional competence of students of non-linguistic universities in the process of learning a foreign language; optimization of the process of teaching a foreign language in non-linguistic universities based on digital support programs, digital environment in the development of student autonomy; training in professionally oriented foreign language communication; project-based methodology for teaching English to engineering students; communicative capabilities of students at a non-linguistic university when studying foreign languages; formation of creative and communicative competence of students of non-linguistic specialties; formation of grammatical and discourse skills in students based on the cognitive approach; the possibilities of gaming and immersive technologies in language training and formation of communicative competence, etc.

At the same time, the development of communicative competence presupposes knowledge of philosophical, social, linguistic, personal approaches to the professional activities of future specialists, development of pedagogical foundations of professional skills, taking into account linguodidactic and management areas. At the same time, the problem-communicative principle and interactive methods of teaching disciplines become leading in teaching students.

According to the study by Aldelfer et al. [2], first-year STEM students who get Inclusive Scientific Communication Training (authors' developed teaching strategy) had higher self-efficacy and a stronger sense of identification as scientists and science communicators. The authors contend that while many STEM students do not receive sufficient training in these skills, it is imperative that STEM students be able to discuss science with a variety of audiences. Students who can effectively speak about science may experience a sense of empowerment as scientists and be able to better explain science to others in the community. The authors of the study created, carried out, and assessed a workshop that provided students with knowledge of and practice using inclusive science communication. The 50-minute lesson was designed to be included into already-existing STEM courses. There were four parts to this workshop:

1. Using the previously described principles of science communication, there will be a discussion of definitions and models of science communication.
2. Examination of case examples in science communication. Students were encouraged to talk on the effective and participatory scientific communication elements in these stories as well as the ineffective and deficit-based ones. These case studies were modified to meet the students' academic requirements.

3. Use a role-playing exercise to practice communication across disciplines and differences. The students were divided into groups of three and given a variety of “roles” to play, including microbiologist, journalist, teacher, doctor, and so on. The goal of the activity was to have the students discuss and come up with solutions for socioscientific problems like antibiotic resistance, clean energy, and food insecurity. Students were urged to be imaginative and to understand that in order to address complicated problems, a variety of viewpoints are required.
4. Discussion with peers about their opinions on a scientific subject is one way to start a strategy to become a science communicator in the upcoming month.

The workshop’s overarching objective was to assist students in appreciating the importance of varied viewpoints and backgrounds in co-creating solutions to socioscientific problems [2].

Science self-efficacy and science identification are two examples of student emotional measures that are linked to STEM persistence. Aldelfer et al. quantified these measures and shown that the workshop raised these measures for both students who do not hold these identities and students who do hold them. Additionally, they evaluated the open-ended responses from students on themes associated with the Theory of Planned Behavior, Community Cultural Wealth, and White Supremacy Culture. They discovered that while power disparities, conflict aversion, and perfectionism served as obstacles to science communication behaviors, other forms of cultural capital enabled students to engage in these activities. This study emphasizes how crucial it is to give undergraduate STEM students specific instruction and experience in inclusive science communication. The findings also imply that for students to grow in their sense of self and confidence as scientists and science communicators, they must have the chance to engage in reflexivity, or the habit of thinking back on their motives and identities.

Naturally, the educational value of such trainings can be significantly raised if they are conducted within foreign language teaching landscape. In this case, there would be a synergy due to combining three components of competence – professional, communicative, and language.

Other researchers have observed that when English language learners (ELs) participate in activities that STEM experts and professionals regularly engage in and engage in meaningful classroom interaction, they acquire language proficiency and science, technology, engineering, and mathematics (STEM) knowledge [16].

It should be mentioned that language and subject courses have historically coexisted in academic programs without having a clear relationship. According to this division, teaching topic is “the real intellectual challenge”, whereas teaching language is “practical and technical” [10]. Globalization and the emphasis on the information economy, however, need reevaluating the overall orientation of academic programs and the tenets of individual courses. This requirement also reflects the change in educational philosophy away from a traditional knowledge-based approach and toward emphasizing the development of students’ skills and competencies. This method calls into question the nature and focus of academic programs in foreign language and cultural studies. Cabau [7] uses a case study of an undergraduate European studies program in Hong Kong that combines social science and rigorous language training as two majors to demonstrate this point. This unusual combination is intended to foster students’ enthusiasm and language learning by combining academic fields in a productive way. The two educational axes of the Common European Framework of Reference for Languages - the action-oriented approach and the idea that language learners are social agents - as well as the Content and Language Integrated Learning (CLIL) method lend credence to this pedagogical viewpoint.

The unsatisfactory outcomes of FL teaching, the knowledge that longer instruction times do not always translate into higher student proficiency, and the demand for improved language and communication learning outcomes have all contributed to the implementation of CLIL programs. According to experts, university students studying abroad fall short of their academic potential due to ineffective coordination between language and content teaching and learning as well as students’ passivity in content classrooms, which are typically marked by a high percentage of teacher talk and few opportunities for student response [5]. Without adding more classes to the curriculum, the greatest approach to increase students’ exposure to the target language and enhance their FL competency is through the introduction of CLIL programs. Language is viewed as a tool, not merely a goal, in the CLIL approach. In addition to enhancing oral communication abilities and language proficiency, the CLIL methodology expands possibilities for exposure to and practice in the target language/culture, as well as fostering a deeper comprehension of academic, communication, and foreign learning cultures. Additionally, it fosters the growth of intercultural knowledge and comprehension, intercultural communication abilities, and chances for material study from many angles, all while boosting student motivation and self-assurance in the language and the subject matter being taught [12].

The most evident difference between language and substance is probably this one. In mathematics, terms are employed differently than in science. However, take into account the various ways that meaning is presented and enacted; for instance, writing instead of speaking, and the various wordings that depend on the relationship between the speakers - for instance, speaking in a small group or one-on-one. Adding new registers and developing current ones is a major goal of the education process (see Figure 2) [13]. Since the registers employed respond to the settings participated in, designing situations to allow students to extend their language repertoires is an important goal of instruction in all courses.

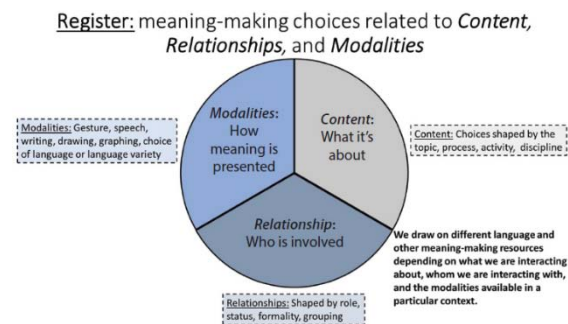


Figure 2. A perspective on language as variation in Register [13]

At the same time, the concept of “readiness for foreign language communication” still remains insufficiently covered and substantiated. And although this reality is relatively often commented on in the pedagogical and psychological literature, there are still not enough scientific works devoted to studying the essence and conditions for the establishing of this phenomenon. As an analysis of the existing scientific literature fund has shown, aspects of taking into account the theoretical foundations of the formation of readiness for professional foreign language communication of future specialists, their specifics have not yet been properly reflected in the scientific pedagogical and psychological literature.

Meanwhile, foreign language communicative competence is an integral characteristic of a specialist’s professional activity, which covers the following substructures: activity (ability, knowledge, skills, and methods of carrying out professional activities); communicative (ability, knowledge, skills, and methods of professional communication).

Knowledge of the language, a high degree of practical proficiency in both verbal and nonverbal means, and experience in language proficiency at a variable-adaptive level depending on the particular speech situation are all considered components of “foreign language professional competence” in contemporary research [14]. Communicative competence, a qualitative trait of a specialist’s personality that includes a set of theoretical and scientific knowledge, practical skills in the field of professional communication, experience in professional interaction, and long-term motivation for professional communication, is a crucial structural element of professional competence.

Moreover, interpersonal verbal interaction, “sociality” itself, not only now plays a large role in the workplace context, but it is already replacing previous standards of rationality and formality. Thus, a new “social morphology” is formed by cooperative networks; network integration is achieved and maintained through a form of interaction that can be characterized as “working through communication” [25]. Personal resources include the ability for mutual understanding, flexibility of thinking, breadth and depth of argumentation, high semantic and speech qualities, the ability to justify and make decisions in conditions of uncertainty and time pressure [27]. In this landscape, applied linguistics, namely its communicative functions, including within the framework of sociolinguistics, becomes important for the educational process and the formation of the necessary competencies.

The most important property of applied linguistics methods is optimization. Optimization is understood as such a description (model) of a problem area in which this area retains in the resulting representation only those essential properties that are necessary for a given practical problem. In other words, while theoretical research requires a complete description of the problem area with all its complexities, the applied optimized description must be satisfactory only for this specific task.

From a functional point of view, applied linguistics can be defined as an academic discipline in which ways to optimize various areas of the functioning of the language system are purposefully studied and developed. The functions of language set the reference points for the classification of a huge area of application of linguistic knowledge. Disciplines such as translation theory, machine translation, the theory and practice of teaching native and non-native languages, the theory and practice of information retrieval systems, the creation of information and, more broadly, artificial languages, and coding theory contribute to the optimization of the communicative function [9].

At the same time, ICT serves as an interactive space for the implementation of methodological and pedagogical learning goals, teacher creativity, and optimizes the system of organizing and monitoring students’ work in learning both a language and a profiling specialty, make it possible to effectively organize classroom and extracurricular work, and also allow managing the independent work of students. However, when selecting educational material for a lesson using ICT, the teacher should observe the basic didactic principles: systematicity and consistency, accessibility, differentiated approach, scientific nature, etc.

Immersion technologies have a unique significance. Immersion technologies, in particular, are changing STEM education by improving performance and engagement. Combining VR and AR into teaching has the potential to raise student motivation, increase understanding of difficult ideas, and enhance collaborative learning opportunities [28]. For varied educational contexts and the quick pace of technology innovation, the discipline does, nevertheless, require a globally inclusive and flexible framework. The inclusion of linguistic communication techniques can facilitate this framework. As demonstrated by the favorable effects on student engagement and performance documented in the literature, immersive technologies like VR and AR have the potential to revolutionize STEM education [26; 29]. Educators and researchers can drive STEM education

toward a more personalized, interactive, and successful future by building on these technologies with a mindful approach toward inclusivity, adaptability, ethical considerations, and intercultural awareness in addition to language proficiency [24].

Research indicates that augmented reality (AR) technology not only supports language acquisition but also improves learners’ communication and cultural comprehension [17]. The University of Hawai’i at Mānoa students were given a new and engaging learning environment in the form of an augmented reality mobile game called Guardians of the Mo’o, which is a gecko or Lizard Goddess in Hawaiian culture. The game allowed the students to interact with both the virtual and physical worlds, such as virtual drawings, notes, and artwork on campus, encouraging active language learning and raising cultural awareness. Liu et al. (2016) [17] discovered, using conversation analysis and multimodal analysis, that learner active learning occurred as a result of cooperative bargaining and cooperation amongst team players in order to tackle the challenges jointly. With the presence of multimedia acting as scaffolding, background knowledge activator, motivator, and facilitator, learners can apply what they have learned to the augmented reality and make sense of the real world in an interactive learning environment created by this innovative technology when used meaningfully.

Because they engage students in a way that is behavioral, cognitive, and emotive, mixed reality (MR) technologies - which frequently combine elements of virtual reality (VR) and augmented reality (AR) - are growing in popularity in educational settings.

Through the practice and understanding of nonverbal communication in a simulated environment provided by VR, students can gain confidence in real-life interactions. Virtual reality also removes the anxiety of making mistakes when communicating with foreigners, creating a secure environment for language practice [21; 33].

With the ability to communicate with virtual native speakers, take part in realistic dialogues, and traverse real-life circumstances, virtual reality (VR) provides a platform for students to learn language in an authentic way [11]. Students gain confidence and fluency in their target language through real-world practice in a simulated setting, which is beneficial for their professional careers [18].

While global collaboration through virtual interactions, or global PBL, offers students special opportunities to practice communication in STEM subjects by utilizing videoconferencing and Learning Management System technologies, bridging classrooms internationally, PBL has been shown to be successful in improving students’ communication skills. The synergistic impacts of global PBL on students’ development of STEM communication skills are reported by Owens and Hite [20].

Another powerful tool for conveying difficult ideas and concepts in a relatable and interesting way is storytelling. By incorporating narrative strategies into language and professional education, students may communicate their ideas to a variety of audiences [3]. Encouragement of public speaking should also be brought up. For STEM workers, public speaking is a crucial communication skill since it enables them to share their concepts and discoveries with audiences that are both technical and non-technical. Giving students the chance to practice public speaking through debates or speeches can help them feel more at ease and confident in their capacity for effective communication.

Interacting with the media is an important tool for combining professional training with language in a synergistic way when it comes to the communication component. Students’ capacity to explain their work to the wider audience can be improved by teaching them how to engage with the media. Through adept handling of interviews and persuasive research presentation, they can support more truthful and impartial media portrayals of professional domains.

Encouraging students to take part in science communication groups, contests, or events is also a good idea as they can offer excellent chances for them to hone their communication abilities. These extracurricular activities can ignite a passion for communicating in other languages and help students develop their communication skills by encouraging them to think outside the box when it comes to how they might explain their scientific knowledge.

Creating educational experiences that are both successful and captivating requires a close relationship between learning objectives, pedagogies, and technologies. These three elements working together ensures that the tools and methods of instruction chosen will help students meet their predetermined learning objectives. The instructional methodology should be easily connected with the technologies being used. They should not be used just for the sake of technology, but rather to support and improve instructional strategies. Collaboration technologies have the potential to foster online discussions and actively engage students, while adaptive learning platforms can provide personalized content tailored to each student's performance and growth.

#### Literature:

1. Ahmed, S., & Pawar, S. (2018). Communicative competence in English as a foreign language: Its meaning and the pedagogical considerations for its development. *The Creative Launcher*, II(VI), 267-277.
2. Aldelfer, S., McMillan, R., Murphy, K., Kelp, N. (2023). Inclusive Science Communication training for first-year STEM students promotes their identity and self-efficacy as scientists and science communicators. *Frontiers in Education*, 8. <https://doi.org/10.3389/educ.2023.1173661>
3. Anderson, J., & Li, Y. (2020). *Integrated approaches to STEM education: An international perspective (Advances in STEM Education)*. Springer.
4. Arasaratnam-Smith, L. (2022). *Developing intercultural competence in higher education: International students' stories and self-reflection*. Routledge.
5. Benitez, V. (2017). *Content and Language Integrated Learning (CLIL): an effective methodological approach to teach foreign languages in mainstream education*. Editorial Dykinson, S.L.
6. Biasini, E., Becerra, N., Magedera, H., Reumao, A. (2019). *Innovative language teaching and learning at university: a look at new trends*. Research Publishing.
7. Cabau, B. (2016). Language and content courses: A plea for synergy in academic programmes. *Interface*, 1, 5-30.
8. Darasawang, P., & Reinders, H. (2015). *Innovation in language learning and teaching: The case of Thailand*. Palgrave Macmillan.
9. Dodigovic, M., & Jeaco, S. (2021). Technology in applied linguistics. *International Journal of TESOL Studies*, 3(2), 1-4.
10. Fandrych, C. (2010). Language and subject matter reunited: a bilingual approach for teaching modern foreign languages at higher education institutions. *ForumSprache*, 3, 20-32.
11. Hamilton, D., McKechnie, J., Edgerton, E., & Wilson, C. (2021). Immersive virtual reality as a pedagogical tool in education: a systematic literature review of quantitative learning outcomes and experimental design. *Journal of Computers in Education*, 8(1), 1-32.
12. Hemmi, Ch., & Banegas, D. (Eds.). (2021). *International perspectives on CLIL (International Perspectives on English Language Teaching)*. Palgrave Macmillan.
13. Hill, G., Falout, J., & Apple, M. (Eds.). (2022). *STEM English in Japan: Education, innovation, and motivation*. Palgrave Macmillan.
14. Irimiea, S.B. (2018). The survival of interactional sociolinguistics in the 21st century. *European Journal of Multidisciplinary Studies*. 3(4), 61.
15. Jeong, K.-O. (2018). Developing EFL learners' communicative competence through multimedia-assisted language learning. *Journal of Theoretical and Applied Information Technology*, 96(5), 1367-1376.
16. Kocabas, S., Ozfidan, B., & Burlbaw, L. (2020). American STEM education in its global, national, and linguistic contexts. *EURASIA Journal of Mathematics, Science and Technology Education*, 16(1), em1810.
17. Liu, Y., Holden, D., & Zheng, D. (2016). Analyzing students' language learning experience in an augmented reality mobile game: An exploration of an emergent learning environment. *Procedia: Social and Behavioral Sciences*, 228, 369-374.
18. Liu, R., Wang, L., Lei, J., Wang, Q., & Ren, Y. (2020). Effects of an immersive virtual reality-based classroom on students' learning performance in science lessons. *British Journal of Educational Technology*, 51(6), 2034-2049.
19. Montgomery, C., & Fernandez-Cardenas, J. (2020). *Teaching STEM education through dialogue and transformative learning*. Routledge.
20. Owens, A., & Hite, R. (2022). Enhancing student communication competencies in STEM using virtual global collaboration project based learning. *Research in Science & Technological Education*, 40(1), 76-102.
21. Panagiotidis, P. (2021). Virtual reality applications and language learning. *International Journal for Cross-Disciplinary Subjects in Education*, 12(2), 4447-4455.
22. Pandey, M. (2014). *Developing communicative competence through integrated skills approach: Techniques and strategies*. LAP LAMBERT Academic Publishing.
23. Peters, M., & Besley, T. (2006). *Building knowledge cultures: Education and development in the age of knowledge capitalism*. Rowman & Littlefield Publishers.
24. Sen, C., Ay, Z., & Kiray, S. (2018). *STEM skills in the 21st century education*. ISRES Publishing.
25. Sneller, B., & Barnhardt, A. (2023). Sociolinguistic prompts in the 21st century: Uniting past approaches and current directions. *Language and Linguistics Compass*, 17(3), e12484.
26. Spuck, W. (2018). *Best practices in STEM education*. Peter Lang.
27. Szubko-Sitarek, W., Salski, L., & Stalmaszczyk, P. (Eds.). (2014). *Language learning, Discourse and communication*. Springer.
28. Tene, T., Tixi, J., Roballino, M., Salazar, M., Gomez, C., Bellucci, S. (2024). Integrating immersive technologies with STEM education: A systematic review. *Frontiers in Education*, 9. <https://doi.org/10.3389/educ.2024.1410163>
29. Vickery, R., Murphy, K., McMillan, R., Alderfer, S., Donkoh, J., Kelp, N. (2023). Analysis of inclusivity of published science communication curricula for scientists and STEM students. *CBE-Life Science Education*, 22(8). doi: 10.1187/cbe.22-03-0040
30. Walker, I., Chan, D., Nagami, M., Bourguignon, C. (2018). *New perspectives on the development of communicative and related competence in foreign language education (Trends in Applied Linguistics)*. De Gruyter Mouton.
31. Whyte, S. (2019). Revisiting communicative competence in the teaching and assessment of language for specific purposes. *Language Education & Assessment*, 2(1), 1-19.
32. Wiese, H. (2022). Communicative situations as a basis for linguistic systems: Integrating linguistic multi-competence with grammatical structure. *Urban Language & Literacies, Working Paper 287*.
33. Zheng, C., Yu, M., Guo, Z., Liu, H., Gao, M., & Chai, C. S. (2023). Review of the application of virtual reality in language education from 2010 to 2020. *Journal of China Computer-Assisted Language Learning*, 2(2), 299-335.

#### Primary Paper Section: A

#### Secondary Paper Section: AL



## MODERN FINANCIAL INNOVATIONS AND THEIR ROLE IN THE FORMATION OF THE INTERNATIONAL MONETARY AND FINANCIAL SPACE

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**Abstract:** The article attempts to systematize the patterns of modern financial innovations in the form of fintech and outline their impact on transformation in the international financial market and monetary space. The authors claim about paradigm shift in global financial landscape and present conceptual evaluation of its implications for both players and regulators. The results of the study would help deepen and expand understanding of the current dynamics and development prospects of financial markets and banking sector.

**Keywords:** financial innovations; fintech; monetary space; financial market; paradigm shift.

### 1 Introduction

The dominating aspect of the modern financial system is a rapid rate of innovation, both in terms of quantity and value. Financial innovations are not a new phenomena; they have been accompanied technology improvements since the beginning [27]. It is widely acknowledged that financial and technological advancements are inextricably linked and progress concurrently throughout time. On the one hand, financial innovations offer a way to support innovative technological companies when traditional funding sources are unavailable due to high investment risk. On the other hand, technological and economic progress, which increases the complexity of business processes and introduces new types of risk, forces the financial system and financial markets to adapt and modernize in response to the new requirements of business entities and the challenges of today [4]. This leads to the conclusion that without financial advances, technical and economic growth would stall, and nations' wealth would decrease. Simultaneously, the use of financial advances would be constrained in the absence of demand generated by technological advancement [18].

Industry 4.0 and rapid digital transformation determined arising of not only purely technically, but also conceptually new financial technologies and tools. A paradigm shift in financial markets is observed [6].

The global systemic crisis marked a paradigm shift in world development - a renewal of not only the mode of production (the transition from the industrial era to the post-industrial era), but also the entire social structure (the transition from the capitalist system to the post-capitalist one). As is known, this civilizational shift is caused by the combined action of three factors - globalization, the fifth scientific and technological revolution, and the third revolution in social communications (the spread of Internet technologies - after the advent of language and then writing). Massive online contacts have reduced social distances, which has led to a sharp increase in the dynamism of the environment, the level of interdependence of players and the degree of unpredictability of events - a situation often perceived as the "tyranny of the moment" [3].

Adapting to new environmental parameters, the world began to rapidly move towards the information society, the main feature of which, according to Manuel Castells, is not so much the dominance of information but rather the network logic of its use. Castells emphasized the organic connection between the new technological paradigm and the formation of a network structure, when network information flows, network structures and

network interactions form the basis for the organization of the economy and society. In accordance with his vision, the modern economy spontaneously transforms into a network system and thereby becomes a "continuously moving space of flows", acquiring the ability of continuous updates [13].

Institutionally, the increasing complexity of the structure of economic systems is associated with the emergence of a new way of coordinating connections and harmonizing interests. All these processes respectively influenced the international monetary and financial space.

Prior to the onset of the global financial crisis (GFC) in 2007, the methods in which financial markets, institutions, and players functioned were heavily influenced by certain paradigms about how financial markets and institutions should operate and how investors should behave. Markets were thought to be informationally efficient, and financial innovation was viewed as an effective risk management and economic growth instrument. Similarly, self-regulation of markets by the financial industry was viewed as a successful regulatory instrument. Prior to the crisis, policymakers' pro-self-regulatory stance was evident in their opposition to the Commodity Futures Trading Commission's (CFTC) efforts to strengthen public regulation of over-the-counter derivatives in the late 1990s [16]. Politics has gradually become secondary to markets over the previous few decades. Since Francis Fukuyama's post-1989 'end of history' idea, which claimed that Western-style liberal democracy combined with capitalism had triumphed over other socioeconomic paradigms, the neoliberal version of free market economy with a limited role for the state has dominated. Markets became less political in the second half of the 2000s, and regulatory institutions and processes were further eased. Nobody questioned the involvement of entrenched interests in such organizations and systems, and financial rating agencies grew dominant in forecasting doom and gloom for whole countries and economic activity sectors. International organizations such as the Organization for Economic Cooperation and Development (OECD), the World Bank, and the International Monetary Fund (IMF) did little to combat this subtle erosion of power in favor of more private and even less accountable private actors such as banks, multinationals, and rating agencies. The actions of the IMF and the World Bank prior to the GFC sparked widespread anger among global civil society [28].

As modern theorists of business management believe, the global crisis will gradually destroy the traditional model of the global financial market, and the classic TNCs and TNBs, which today are leading the world economy to stagnation, will be replaced by dynamic network organizations, both production and credit - they will become the new engine of economic growth [23]. It is significant, for example, that the energy market, which, according to expectations, is capable of acting as a driver of the post-crisis recovery of the global economy, is today changing not only the resource structure (the era of crude oil and natural gas is becoming a thing of the past), but also the organizational model: the role of the main players is gradually moving from large corporations to millions of individual investors.

Participants in innovation ecosystems do not just cooperate, but enter into collaborative relationships. They interactively exchange explicit and tacit knowledge, forming a shared vision regarding measures to adapt to a hypervariable environment. Thanks to this vision, network participants can make more effective decisions compared to individual ones (collective self-government mechanism), as well as effectively join forces to jointly create new benefits (collective innovation mechanism). Moreover, this vision is continuously adjusted in the course of mutual agreements, forming the basis for generating innovations in a continuous mode. The resulting synergy of interactions gives the network community the ability to develop itself, which is clearly seen in the example of Fintech.

Models of innovative financial ecosystems, i.e., patterns of network cooperation, are extremely diverse. In this context, understanding modern financial innovations and their role in the transformation of the international monetary and financial space seems to be an extremely urgent scientific task.

## 2 Materials and Methods

The study used general logical methods (analysis, synthesis, induction, deduction and analogy), theoretical methods (hypothetico-deductive method, generalization, factor, system and structural-functional analysis), empirical methods, such as the method of comparative statistical and dynamic analysis.

In the process of carrying out the research, systemic, expert-analytical, comparative, institutional, evolutionary, synergetic methodological approaches, a modeling method, a combination of analysis and synthesis methods were also used to identify problems (trends, patterns, and contradictions) in assessing the impact of financial innovations on the international financial market and monetary landscape.

## 3 Results and Discussion

The financial services sector is at a crossroads in a disruptive period, marked by the dynamic interaction of digital currencies, alternative payment rails, and novel financial concepts. The trip began with the excitement around cryptocurrency, alternative payment systems such as Cash App, Venmo, and Afterpay, and the advent of digital banks, all of which sent shockwaves through the traditional banking and financial services industries. However, as the cryptocurrency market crashed and digital banks struggled to gain momentum, the traditional banking sector breathed a sigh of relief. A deeper examination, however, indicates that a new tsunami is on its way—one that could transform the fundamental underpinnings of financial services in the cognitive internet age [2].

The first wave of change arrives with the obvious momentum of digital currencies, which are ready to supplant traditional currency. As of the third quarter of 2023, 130 nations accounting for 98% of global GDP were using Central Bank Digital Currencies (CBDCs). Nineteen of the G20 nations are in advanced development, and eleven have already launched a digital currency, with China leading the way, reaching 260 million people across over 200 use cases ranging from retail to public transportation and stimulus payments [3].

We live in the age of digitization. This is a well-known truth, and technology has lately changed the financial business. The rise of digital banks, or neobanks as some refer to them, is altering the financial landscape. With the correct attitude, a digital bank may become more than just a transaction platform. It has the potential to develop into a financial ecosystem, providing everything from banking to investing goods at one location.

Digital banks are banks that do not have physical branches and instead provide financial services remotely via digital platforms such as mobile applications and web portals. Of course, it cuts major expenses, allowing these institutions to invest in technology that will strengthen their operations. Digital banks use cloud computing to provide scalability and stability, allowing businesses to handle high quantities of transactions easily. AI and machine learning can deliver personalized banking services, fraud detection, and predictive analytics. It is no surprise that the worldwide AI in fintech market was valued at \$8.23 billion in 2021 and is expected to reach \$61.30 billion in 2031 [5].

Despite investment swings, the future of fintech funding seems promising. CB Insights revealed that \$7.3 billion was invested in Q1 2024 over 904 deals, which is no minor achievement. It demonstrates the capital's sustained conviction in the potential of fintech and digital banking. U.S.-based fintech businesses led the drive in the first quarter of 2024, winning \$3.3 billion from 393 agreements, followed by the European fintech industry with

\$2.2 billion from 203 acquisitions. Asian fintechs placed third with \$1 billion from 210 transactions [19].

Figure 1 below shows tremendous growth of fintech adoption on the example of Gulf countries.

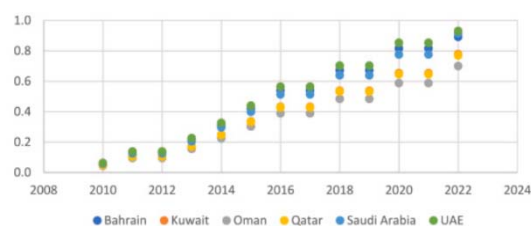


Figure 1. Fintech adoption in GCC [12]

Blockchain technology provides unprecedented transaction security and transparency. Digital banks use a variety of cybersecurity protections, including as end-to-end encryption, multifactor authentication, and KYC. These safeguards guarantee that consumers' financial information is secured, making digital banking as secure, if not safer, than traditional banking.

The landscape of both consumer and business banking will soon undergo a fundamental upheaval, questioning the usefulness of classic products such as checking accounts and credit cards. The developing paradigm stresses a highly individualized approach in which people and corporations are provided with their own digital vaults. These vaults, which serve as safe repositories, hold digital versions of a variety of assets. This encompasses not just financial instruments, but also actual assets such as homes, automobiles, expensive art pieces, antiques, and even novel instruments like non-fungible tokens (NFTs). The digital representations of actual assets provide unparalleled flexibility, allowing people and organizations to use these assets as collateral for loans or to trade more easily by utilizing digital tokens and smart contracts [2]. This dramatic move marks a break from traditional banking practices, ushering in a new era in which the lines between the physical and digital worlds are blurred, providing novel opportunities for managing and profiting on different assets in both personal and commercial contexts.

Embedded finance, defined as the seamless integration of financial services into non-financial digital environments, is transforming the way organizations and consumers engage with financial goods. These services were once limited to traditional financial institutions, but they are increasingly being woven into the very fabric of digital commerce, from shopping platforms to social networking applications, sometimes without consumers realizing they are engaging with sophisticated banking technology.

This disruptive approach to banking is driven by technology advancements that have broken industry boundaries, allowing firms to provide specialized financial services straight from their digital platforms. According to McKinsey, this integration not only improves the customer experience by providing services "at the point of need", but it also creates new revenue sources for businesses beyond the traditional financial environment [22].

The fast growth of embedded finance is altering the competitive environment, forcing traditional banks to reconsider their strategy and adapt to a market where technology and customer experience reign supreme. As these financial products grow more integrated into common apps and platforms, they offer the promise of improved convenience and accessibility while also posing major regulatory and operational problems.

Embedded finance is growing as a result of advances in essential technologies that allow for the seamless integration of financial services into non-financial digital platforms. APIs are a key technology driving this integration since they enable diverse

software systems to connect rapidly and effectively, allowing services like payments, loans, and insurance to be embedded into numerous consumer platforms. This enables users to obtain financial services directly through their chosen digital channels, eliminating the need to communicate individually with financial institutions.

The proliferation of smartphones has also had a significant impact on the development of embedded finance. The global rise in smartphone usage has increased access to mobile wallets and other digital payment methods, making financial services more accessible to a wider audience. This tendency is aided by the development of systems such as India's Unified Payments Interface, which streamlines transactions and has gained broad use.

Artificial intelligence (AI) has also played an important part in improving the capabilities of embedded finance by allowing for more tailored and efficient services. AI's ability to handle vast amounts of data in real time enables improved risk assessment and more personalized financial product offers. In the lending industry, for example, AI enables upgraded credit scoring algorithms that give more accurate evaluations of borrower risk, resulting in better loan choices and improved client experiences. The use of big data analytics in the banking industry is a watershed moment, opening the way for data-driven decision-making, improved risk management, and a better customer experience. As technologies such as artificial intelligence and machine learning evolve, the potential for big data in the financial sector will only increase, driving the industry into an exciting and progressive future.

These technology advancements not only improve the functioning and reach of financial services, but they also reshape customer expectations and the competitive environment of the financial business. As technology advances, embedded money is likely to play an increasingly important part in ordinary consumer activities.

The advent of embedded finance represents a paradigm change for traditional financial institutions, compelling them to reconsider their business models and client engagement initiatives. This transition is being driven by a growing consumer and company demand for more integrated and seamless financial experiences, which embedded finance provides. In response, traditional banks are increasingly collaborating with technology companies to provide integrated financial capabilities via Banking as a Service (BaaS). BaaS enables banks to share their regulatory and financial infrastructure with internet businesses, allowing them to provide financial services without becoming banks themselves. This partnership allows for the direct integration of banking services such as account management, payment processing, and credit facilities into third-party platforms. Such collaborations allow banks to not only benefit from fintechs' technological knowledge and creative ideas, but also to expand their service offerings to new consumer bases.

As embedded finance grows, it brings a new set of regulatory challenges and considerations that must be addressed in order to protect consumers and ensure the financial system's stability; regulatory bodies around the world must focus on adapting existing frameworks to accommodate the rapid growth of financial services provided by non-traditional financial institutions. In particular, Europe is undergoing regulatory changes, with the European Banking Authority (EBA) focussing on ensuring that embedded finance does not violate existing banking and financial services legislation. This involves adhering to strict KYC (Know Your Customer) and AML (Anti-Money Laundering) regulations, even when financial goods are sold via non-financial channels.

These regulatory initiatives are critical for preserving trust in the financial system, since embedded finance blurs the conventional lines between economic sectors. Authorities can assist encourage the expansion of embedded finance while preserving consumers

and the financial system's integrity by establishing strong regulatory control.

In the digital age, central banks, as guardians of monetary policy and financial stability, face a critical decision point. The growth of private cryptocurrencies has raised questions about the efficacy of traditional economic institutions, forcing central banks to look at the prospect of developing their own digital currency. CBDCs are a strategic response to this paradigm shift, allowing central banks to gain the benefits of digital technology while preserving monetary policy and regulatory oversight. CBDCs require a multifaceted strategy that considers technical infrastructure, monetary policy objectives, regulatory considerations, and user experience [17]. The essential design elements are: CBDCs must be built using secure and strong blockchain or distributed ledger technology to safeguard against cyber threats, fraud, and counterfeiting. The underlying infrastructure should be capable of handling huge transaction volumes with low latency, allowing for seamless interchange between payment systems. Balancing transaction openness with user privacy is crucial for preserving trust and adhering to data protection regulations. CBDCs should serve a diverse user base through user-friendly interfaces and interoperable access channels, including the unbanked and underbanked. Interoperability of CBDC systems with traditional payment networks is crucial for facilitating cross-border transactions and boosting global financial integration. As a result, in the fast growing field of digital banking, Central Bank Digital Currencies (CBDCs) have emerged as a game-changing innovation, poised to reshape the fundamental fabric of monetary transactions and financial institutions throughout the world [28]. As countries and financial institutions wrestle with the complexities of implementing CBDCs, it is critical to investigate the various difficulties and possibilities that these digital currencies bring. This essay attempts to shed light on the important concerns for CBDC implementation, with an emphasis on security, data privacy, and the underlying technology foundation. CBDCs represent a considerable shift from established financial models by establishing a digital form of central bank money that promises increased efficiency, inclusiveness, and innovation in payments and settlements [14].

Financial technologies increase the efficiency and accessibility of financial services, but, on the other hand, can create risks for financial stability. As the potential impact of fintech on the economy increases, the development and implementation of new models of financial intermediation – a “brave new world”, as Christine Lagarde, President of the European Central Bank, called it – creates new challenges for regulators [15].

Financial technologies increase the efficiency of the monetary policy transmission mechanism, as a study by Hasan and Flamini [8] showed on Chinese data. China is the world's largest fintech market, the authors explain their choice, and although the People's Bank of China does not officially target inflation, the mechanism for transmitting monetary policy signals to the economy in China is similar to what happens in developed economies that apply an inflation targeting regime.

The authors developed a model that analyzed how four macroeconomic variables - the dynamics of real GDP, inflation, bank lending, and housing prices - react to monetary policy decisions depending on the level of financial technology development. To determine this level, the researchers relied on the Digital Financial Inclusion Index in China, developed by Peking University together with Ant Group (a subsidiary of the tech giant Alibaba Group, which owns the Alipay payment system). The index takes into account the penetration of digital financial services (payments, investments, insurance, lending) across three administrative levels (provinces, prefectures, and counties). In their study, the authors looked at provincial-level data from 2011-2018. To compare the results, a model was used that did not take into account the fintech development factor.

The level of penetration of financial technologies increases the influence of monetary policy on economic and financial

indicators, according to research data. But this “fintech factor” is quite short-lived: differences between macroeconomic responses in regions with low and high fintech indexes smooth out after two quarters. Thus, stimulating monetary policy in regions with a low level of fintech development does not lead to real GDP growth, but in regions where financial technologies are more developed, it is accompanied by a noticeable, albeit short-term, increase in real GDP. The volume of bank lending in regions with a high level of fintech development is increasing approximately twice as fast as compared to regions where fintech is less developed; this effect persists for seven quarters, but is statistically significant only at the initial stage. The rise in house prices in response to expansionary monetary policy is also more pronounced in regions with more advanced financial technology compared to regions with low levels of fintech adoption.

The role played by the level of fintech development in the impact of monetary policy on inflation is ambiguous, the researchers note. When fintech adoption is high, expansionary monetary policy causes weaker price growth than when fintech adoption is low, but after one quarter the effect reverses: inflation rises more at high fintech adoption than at low fintech adoption. This may be because greater adoption of fintech gives companies access to additional sources of finance and allows them to increase production, the authors explain, and in the subsequent period inflation rises as companies are able to increase investment and consumption.

Overall, however, as Al Kasasbeh et al. (2023) [1] claim, the efficiency, speed of information processing, and relevance and customization of information provided by emerging FinTech solutions compelled traditional participants in the global financial system to aggressively update their operations in order to remain competitive. Financial innovations increase the profitability of the financial sector, but they also change the structure of the financial system, creating a potentially unstable and highly unpredictable environment [11]. The use of multiple financial innovations within the context of FinTech might create a potentially unstable environment characterized by a high level of unpredictability. FinTech endangers the sustainability of the whole global system since its implementation leaves old functional connections inert, whilst new institutions and interdependencies may be distorted and possibly disruptive, with multiple unknown consequences [10].

None of the ‘fiat’, real currencies grew at a comparable rate to cryptocurrency (see Figure 2 for the dynamics of relative values of key cryptocurrencies in USD from 2014 to 2021). The profitability of cryptocurrencies has skyrocketed as more investors are willing to take on the enormous risks in exchange for massively profitable rewards. Robert Shiller (2015) [21], a Nobel laureate in economics, feels Bitcoin is the best modern example of a financial bubble. Furthermore, because cryptocurrency marketplaces are more difficult to control than traditional financial markets, criminals regularly utilize them for unlawful objectives such as money laundering, tax evasion, financial fraud, theft, and terrorist financing. The Anti-Phishing Working Group (APWG) said that fraudsters stole around USD 1.2 billion in cryptocurrency in 2017. As a result, state regulatory authorities have begun investigating whether bitcoin firms breach any laws. The United States Securities and Exchange Commission (SEC) has started dozens of investigations into digital tokens due to fraud concerns.



Figure 2. Relative prices of major cryptocurrencies in USD, 2014-2021 [1]

However, as Hasan et al. (2024) [9] argue, the results show that FinTech adoption typically reduces the transmission of monetary policy to real GDP, consumer prices, bank loans, and housing prices, with the greatest substantial influence on bank loan growth. Reduced financial limitations, regulatory arbitrage, and more competition are all plausible processes driving the mitigated transmission.

Sadiq et al. [20] investigate the impact of blockchain and digital currency on loan supply and financial stability. It focuses on industry-specific analysis and choices given by cryptocurrencies, stablecoins, and digital currencies for credit supply and financial stability. The study reveals that the adoption of various digital currencies rapidly alters company. The authors demonstrate that most sectors do not require central banks and instead rely on current digital currency and blockchain networks to facilitate monetary transfers. They argue that both private and governmental types of physical money will collapse in the future. Instead, central banks should combine digital currency and blockchain with an online technology payment approach to improve domestic financial stability and payment systems.

Furthermore, sustainable finance is gaining pace on a global scale, whether through voluntary pledges from market players or legislation. Over the last several years, sustainable assets under management have grown at an astonishing rate. In specifically, in the EU’s policy framework, sustainable finance is defined as financing that supports economic growth while decreasing environmental constraints in order to assist achieve the European Green Deal’s climatic and environmental goals, while also taking into consideration social and governance issues. Sustainable finance also includes openness when it comes to risks associated with ESG issues that may have an influence on the financial system, as well as risk reduction through adequate financial and corporate governance [25].

The worldwide sustainable finance market is predicted to reach USD 519.88 billion in 2022, with a compound annual growth rate (CAGR) of 22.6% between 2023 and 2030. In 2022, the total asset under management (AUM) for sustainable finance was USD 37.80 trillion. The increased knowledge and concern about environmental and social challenges, such as climate change, resource depletion, and social injustice, is predicted to drive market expansion [24]. This growing awareness has fueled demand for sustainable finance solutions as people, corporations, and institutions strive to align their investments with their beliefs and contribute to a more sustainable future. Furthermore, regulatory frameworks and government efforts are key drivers of market growth.

Interestingly, according to UN statistics [26], sustainable financing increased despite difficult markets during COVID-19 (see Figure 3).

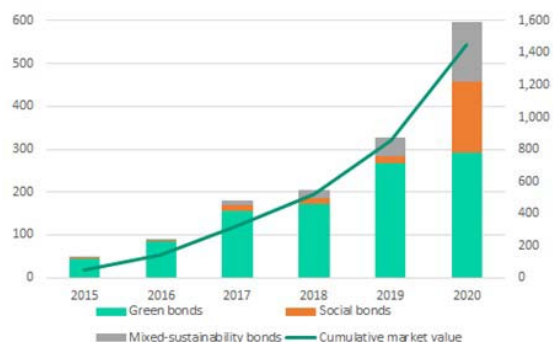


Figure 3. The \$1.5 trillion sustainable bond market continued growth in 2020 [26]

Thus, the effect made by modern financial innovations on the formation of new, post-capitalism international monetary and financial space is multi-directional, multi-vector and requires further thorough investigation, based on the analysis of both theoretical implications and practical transformation on the example of available plenty of cases, patterns of regional or industry specifics, etc.

#### Literature:

- Al Kasasbeh, O., Khasawneh, O., & Alzghoul, A. (2023). The real effects of Fintech on the global financial system. *International Journal of Professional Business Review*, 8(3), 1-12.
- Alamouti, S. (2024, January 19). Financial services in the cognitive internet era: A paradigm shift for banks or the dustbin of history? *Medium*. <https://medium.com/@siavash.alamouti/financial-services-in-the-cognitive-internet-era-a-paradigm-shift-for-banks-or-the-dustbin-of-25f43e1d27b7>
- Anthony, N. (2024). *Digital currency or digital control?: Decoding CBDC and the future of money*. Cato Institute.
- Blach, J. (2011). Financial innovations and their role in the modern financial system – identification and systematization of the problem. *Financial Internet Quarterly*, 7(3), 13-26.
- Dattana, V., Udipi, P., & Pandey, J. (2023). *Artificial intelligence in FINTECH: Concepts, use cases and case studies*. GRIN Verlag.
- Ernst, D., & Gleibner, W. (2022). Paradigm shift in finance: The transformation of the theory from perfect to imperfect capital markets using the example of company valuation. *Journal of Risk and Financial Management*, 15(9), 399.
- Foley, S., Karlsen, J. R., & Putniņš, T. J. (2019). Sex, drugs, and bitcoin: How much illegal activity is financed through cryptocurrencies?. *The Review of Financial Studies*, 32(5), 1798-1853.
- Hasan, I., & Flamini, A. (2024). Aggregate dynamics with sectoral price stickiness heterogeneity and aggregate real shocks. *Journal of Money, Credit and Banking*. <https://doi.org/10.1111/jmcb.13149>
- Hasan, I., Kwak, B., & Li, X. (2024). Financial technologies and the effectiveness of monetary policy transmission. *European Economic Review*, 161, 104650.
- Hendri, N., Sa'diah, K., Jodi, I. W. G. A. S., Hidayat, A., Nasution, S. W. P., Mujiani, S. (2022). Evaluation of financial management information system using modification of the Delone & Mclean Model during the COVID-19 pandemic. *International Journal of Professional Business Review*, 7(5), e0732.
- Keister, T., & Sanches, D. R. (2021). Should central banks issue digital currency? (Working Paper No. 19-26). Federal Reserve Bank of Philadelphia.
- Khan, H., Khan, Sh., & Ghafoor, A. (2023). Fintech adoption, the regulatory environment and bank stability: An empirical investigation from GCC economies. *Borsa Istanbul Review*, 23(6), 1263-1281.
- Knieps, G. (2015). *Network economics*. Springer.
- Kumar, P., Taneja, S., Bhatnagar, M., Kaur, A. (2024). *Navigating the digital paradigm shift: Designing CBDCs for a transformative financial landscape*. IGI Global.
- Kwon, Y., Lee, J.-D., & Owens, J. (2023). Managing Fintech risks: Policy and regulatory implications. *ADB Briefs*, 245.
- Langley, P.A., & Leyshon, A. (2020). The platform political economy of FinTech: Reintermediation, consolidation and capitalisation. *New Political Economy*, 26, 376-388.
- Lee, D. K. C., Yan, L., & Wang, Y. (2021). A global perspective on central bank digital currency. *China Economic Journal*, 14(1), 52-66.
- Ma, L. (2023). Study on regional financial innovation, technological progress bias and high quality economic development. *Applied Mathematics and Nonlinear Sciences*, 9(1), 1-14.
- Pathe, T. (2024, April 8). Fintech funding shows signs of stalling in latest CB Insights report. *Fintech Futures*. <https://www.fintechfutures.com/2024/04/fintech-funding-shows-signs-of-stalling-in-latest-cb-insights-report/>
- Sadiq, M., Aysan, A., & Kayani, U. (2023). Digital currency and blockchain security in accelerating financial stability: A mediating role of credit supply. *Borsa Istanbul Review*, 23(6), 1251-1262.
- Shiller, R. J. (2015). *Irrational exuberance: Revised and expanded* (3rd ed.). Princeton University Press.
- Sironi, P. (2021). *Banks and Fintech on platform economies: Contextual and conscious banking*. Wiley.
- Staley, I. (2023). *A financial paradigm shift: How distributed ledger technology can enhance and sustain economies*. GRIN Verlag.
- Sustainable Finance Market Size, Share and Trends* (2022). Grand View Research. <https://www.grandviewresearch.com/Industry-analysis/sustainable-finance-market-report>
- Thompson, S. (2021). *Green and sustainable finance: Principles and practice*. Kogan Page.
- UN (2021). Sustainable finance surges despite volatile markets during COVID-19. UNCTAD Press Release. <https://unctad.org/press-material/sustainable-finance-surges-despite-volatile-markets-during-covid-19-says-un-report>
- Westra, R. (2024). *The political economy of post-capitalism: Financialization, globalization and neofeudalism*. Routledge.
- Yamaoka, H. (2022). Digital currencies and the future of money. In: *The Future of Financial Systems in the Digital Age* (pp. 49-73). Springer.

#### Primary Paper Section: A

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## PROBLEMS OF DERIVATOLOGY IN THE DIALECTS OF NAKHCHIVAN

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**Abstract:** The article is valuable for enhancing the quality of education in language history, historical lexicology, and dialectology subjects, making it beneficial for students of philological faculties. At the same time, the article can aid in preparing multi-volume dialectological vocabularies and conducting investigations on lexical accents, offering new directions and materials. The dialects and accents of Nakhchevan feature a colorful and rich lexicon. Many words from ancient layers of Azerbaijani language are preserved in these dialects and accents, although some of these words are no longer used in modern language. Literary language is standardized through deliberate selection and substitution operations. Understanding its norms and adhering to them is essential for every cultured individual. In contrast, dialects represent the language of various regions and cities. Nakhchevan dialects and accents are distinguished from other group dialects - such as those in the east, west, and north - due to their lexical, phonetic, and syntactic characteristics. They also differ from southern group dialects. Studying the lexicon of these accents—the linguistic treasure of the Azerbaijani language—and comparing them with ancient Turkic monuments and modern Turkic languages, along with their accentuation patterns, holds great significance.

**Keywords:** Nakhchevan; derivatology; phonetics; morphology; syntax; dialects; accents.

### 1 Introduction

The article systematically investigates the issues of word creation and semantics in the Nakhchevan group of dialects and accents of the Azerbaijani language for the first time.

It is well known that accents serve as reliable sources that preserve existing facts from ancient periods of the language. Therefore, conducting historical-comparative investigations of accent words, identifying their formation models, and tracing accent words formed based on ancient Turkic roots in the Azerbaijani language area can help resolve numerous related issues. By comparing accent words in Azerbaijani with related languages and their ancient written monuments, and analyzing them from a historical-comparative perspective to determine their place in the broader Turkic language system, as well as conducting etymological investigations of words formed on ancient Turkic roots, this research can offer new theoretical insights into problems of historical lexicology. Analyzing accent words from the Proto-Turkic period, identifying some monosyllabic word roots, and clarifying phonetic semantics boundaries are also valuable.

### 2 Method

A comprehensive study of the dialects of the Azerbaijani language is one of the most pressing tasks of Azerbaijani studies. The descriptive, comparative, contrastive, comparative-historical methods used in the research reveal the patterns and features of the development of dialects. Many terms are considered in close connection with ethnography, history, and culture, which helps to reveal their essence.

### 3 Results and Discussion

Studying the ancient structure of word roots, the simpler derivation of words, less complex inflections in compound words, and investigating the relationship between sound changes and word formation substantiate certain theoretical theses. It is recognized that there are simpler laws governing language, with maintenance and form in mutual dialectical unity in the life of words, and understanding these historical dynamics sheds light on the origins of affixes and words.

The scientific exploration of these aspects represents crucial and urgent challenges in Azerbaijani linguistics.

Ethnolinguistic investigation of word creation in the Nakhchevan group dialects and accents explores the usage of stone and rock tools in Azerbaijani culture and daily life, revealing insights into the ancient history and traditions of the Azerbaijani people [5].

The essence and lexical meanings of stone and rock tools reflect their significance, such as “khardtashi” (a stone tool used to sharpen cutting tools), “dibax” (a large mortar for threshing salt, cereals, etc.), “kavar” or “chafar” (stone for filtering water), “atdashi” (a tool for threshing meat), “ahdash” (a commonly used stone tool), “aldashi” or “kirkira” or “kilkila” (handmill), “apbaxdash” (a stone tool for baking bread), and “dash akhur” (a channel stone tool for threshing grapes and extracting juice), among others. These tools often create new meanings through a process involving imitation of sounds, actions, and naming conventions, which are essential factors in defining root morphemes.

While the word “stone” is retained in some parts of these tools’ names, it becomes unnecessary in others. Typically, these word combinations consist of two components: the first component indicates the purpose of the tool, while the second denotes the material from which it is made. As the first part becomes widely used in language, the necessity for the second part diminishes. For instance, “khar”, “dibax”, “kavar” or “chafar”, etc.

In modern Azerbaijani literary language, word combinations that denote the material from which a tool is made transform the noun into an adjective, placing it as the first component of the combination. For example, “stone manger”, “wooden door”, “silver spoon”, etc. In such cases, the first component indicates the material, while the second denotes the object itself, forming the first type of defining word-combination.

When words like “stone”, “wood”, etc., are used as the second component, they do not signify material but rather serve as a name, creating the second type of defining word-combination. For instance, “stone khar”, “stone dibax”, “meat stone”, “wooden apbax”, etc.

The first component of these combinations is linked to the action that describes the purpose of the object indicated in the second component. It is undeniable that words such as “khar”, “dibax”, “meat”, “apbax”, “atmax”, etc., are formed based on verbs.

The word “khar” is a name-morpheme formed through the imitation of sound, following the pattern of action + name (kha+r+t). Based on this name-morpheme, the affix “-la” is added to create the verb “kharlamag”, which means “to sharpen”. Here are examples of its usage: Xart çalğırını itşyan daşdı. (*The stone that sharpens the scythe*) Xartı ver, pıçağımı itşladım. (*Give me the khar, I sharpened my knife.*) Ot çalanda çalğır ağzını xartır. (*During cutting the grass, they sharpened the scythe.*)

In Azerbaijani language, the word “khar” means “thin stone”, and “khariz” means “gravel”. The word “kharidix//kharitix” is used to mean “scrape”, “kharitix” refers to “dissolved soap”, “girdid” is used for “tool regulating thread on hectare”, and “kharikhil//kharitish” means “to plane protuberances of the thread of newly spun yarn”. It can be said that all of these words are connected through the same root morpheme. The root morpheme is formed by the sounds q//x//k//g//ç// + a//o//ı//i, connected with the affix morphemes -r and -t, and plays an important role in forming many new words. Verbs such as “qartmaq”, “qopartmaq”, “qartdamaq”, “xartdamaq”, “qirtatmaq”, “xirtatmaq”, nouns like “qartmaq”, “qartmax”, as well as words such as “qasımaq”, “qazımaq”, “qırmaq”, “qirtmaq”, “qasıq”, “qazıq”, “qırıq”, and “qırxıq” are all formed from this same root morpheme.

“Dibax” // dibay // dibax” dashi (large mortar) (Nakhchivan, Shahbuz, Sharur, Ordubad) is a carved stone tool used for



threshing salt, cereals, and paddy, primarily found in Nakhchivan. It represents the earliest form of a household tool, historically known as havangdasta. This tool was predominantly used for threshing salt, particularly from Duzdagh (Rock salt) in Nakhchivan, where salt is extracted in crystal form. The practice of threshing salt in a dibax underscores its ancient origins and significance. Metaphorically, the expression “the large mortar of the house” refers to the oldest member of a family or household, typically someone over a hundred years old, derived from the lexical meaning of “dibax”. This usage highlights the enduring historical importance of the dibax as one of the oldest tools. The expression also resonates with the cultural significance reflected in the prayer “Let your life change to salt rock”, emphasizing the deep-rooted symbolism associated with salt and longevity.

Using the expressions like “*dibak*” and “*dibak dashi*” (large mortar) attracts attention. The use of the second component in “*dibak dashi*” shows that the first component is not used as a noun. In this case, in the subsequent development of “*dibak*”, a new model emerged – “*cholmek*” (earthen pot) - is recalled.

One should note “*Çolma*” (Julfa) // “*çolmax*” (Sharur, Nakhchivan, Ordubad) // “*çolmay*” - a faience plate used for cooking meals.

At first glance, “*dibak*” (large mortar) and “*cholmek*” (earthen pot) appear similar. However, “*dibak*” is a daily tool made from carved stone, while “*cholmek*” is a pot made from clay. The first root-morpheme is connected with the action of “*to thresh*” verb: “*di-*” // “*dö-*” // “*döy*”. The second root-morpheme, connected with phonetic changes like “*dö-*” // “*çö-*” // “*-yil*” // “*-l*”, is the passive voice suffix, and “*-bak*” // “*-mak*” is the infinitive suffix.

Simply put, the word “*dibak*,” not only in its structure and morphological meaning, but also in its appearance has evolved to signify other objects.

“*Atdashi*” (meat stone) (Nakhchivan) is a tool used to thresh meat on it, one of the earliest kitchen tools. Later, it evolved into the expression “meat wood” and was used for threshing or cutting meat. Eventually, “meat stone” acquired a broader meaning and began to refer to any tool used in daily life (axe, knife, saw, spud, etc.). It developed new variants such as “*ahdash*” // “*ahdaj*” // “*ahtaj*”. The verb “to thresh meat on stone” also contributed to forming a new verb meaning – “*atdamax*” (Nakhchivan) – “to beat someone”.

“*Aldashi*” is a hand mill. We observe that the word “hand mill” is used in forms like “*kilkila*” // “*kirkira*” in our dialects and accents.

“*Apbax'dashi*” (*bread stone*) (Sharur, Nakhchivan) is a stone tool used for spreading bread on it. Depending on the material used, the second component of the expression began to change. Initially made from stone and called “*pbax'dashi*”, later, when the stone was replaced with faience, the tool was again called “*apbax'dashi*” (*bread stone*). Then, when it was made from wood, it was called “*apbax' takhtasi*” (*bread wood*) (Nakhchivan). Its external appearance it led to forms like “*dördə:x*” // “*dordayagh*” // “*dordayakh*”. It may even have three legs, then it was called “*dördayaq*” (“four legs”). We encounter variants like *ə:axlı* // *ə:xlı* of the same word in dialects and accents [21].

Generally, there is no doubt that daily used items made of stone and rock date back to the ancient Stone Age. Even in modern Azerbaijani culture and daily life, “dash akhur” - a tool used to extract grape juice - is still in use.

Thus, language units play an important role in understanding human development periods.

#### Words Indicating Relationships in Nakhchivan Dialects and Accents

The dialect terms gathered from the villages, regions, and cities of the Nakhchivan Autonomous Republic reveal relationships

and provide an opportunity to observe that the most ancient Turkic-Azerbaijani origin dialect words are prominent. These words are connected to the early history of Azerbaijani nation and the ancient period of Azerbaijani language. For a long time, these words have been used as independent lexical units, maintaining their original semantic meaning or undergoing minor phonetic changes. To support our assertions, let us look at examples from these dialects and accents.

Relationship attitudes have existed among humans since the creation of the world. In these relationships, people use different terms to refer to each other. The majority of the relationship terms used in the dialects and accents of Nakhchivan exist in the literary language [18]. However, there are some terms that one cannot find in the literary of language or in different regions of Azerbaijan.

We can divide the relationship terms used in the Nakhchivan dialect into two groups according to general tradition: blood relationship terms and marriage relationship terms [11].

In some regions and villages of Nakhchivan, the word for “*father*” is used with various terms such as *adla*, *qağa*, *qadam*, *aq*, *ava*, *aba*, *abbadə*, *əyə*, *dadaş*, and especially in sayyid families, *agha* (master). The term *papa*, a “souvenir” from Russian, is also used. The word for “*mother*” is used as *mama*, *nənə*, or *aba*. “*Elder brother*” is referred to as *dadaş oradə*, and in the villages of Shahbuz and Sharur regions, *qağa*. “*Little brother*” is called *qaqaş* (meaning pampered). “*Aunt*” is *aba* in Ordubad; “*mother's little brother*” is *dayday*; “*uncle's wife*” is *dayjani*, *amjani*, *əmdostu*, or *əmmə*; and another term for “*aunt, uncle's wife*” is *əmmə* [9]. The term for “*cousin*” (*aunt's son*) is *ədə* in Şahbuz; “*cousin*” (*uncle's son*) is *mirzə* in G arachug, Garakhanbayli, and Bulgan. “*Grandma*” is referred to as *mother*, and in the context of pampering, *cici mama*. “*Mother's mother*” is *machi nana*. “*Grandpa*” is *ata*, *dədə*, or *ağa*. In Bashgurd and Kazakh languages, the word for “*elder*” is another variant, *ağay* [20]. Additionally, the oldest grandpa of a tribe is called *adə baba* (Jadda grandpa). Jadda grandpa's tribe continues with terms like *ovlad*, *nava*, *natica*, *kotuca*, *yadica*, *sadica*, and *itica*.

The term used to identify which tribe a family's son belongs to is also unique. For example, the first son is called *gözün ilk avı* (the first hunting of the eye), while the last son is called the last-born child, sometimes referred to as *halvaqapan* or *axir-uxur*. A child born to an old family is called *janazazingirovu*.

During investigations in the Ordubad region of the Nakhchivan Autonomous Republic, the terms formed from marriage relationships attracted attention. Families who marry their sons and daughters to each other call each other *guda* (father and mother of the son-in-law and daughter-in-law). Out of respect, the bride calls her *elder brother-in-law* *mirzə* and her *brother-in-law's wife* *mirzajani*. She calls her *little brother-in-law's wife* *galinba* and her *elder sister-in-law* *shahbaji*. In her father-in-law's house, family members refer to the bride with different terms such as *baji*, *gulbaji*, *guba* (Sharur), *galinbaji*, *shahbaji*, and *galinba*. The elder brother's wife is called *sonajani* or *aba* (in Ordubad). The girl's family calls the *son-in-law* *giyav* or *kurakan*, and the bride's brothers call the son-in-law *yezna*. (This word is taken from Persian and means “to work, working”). Boys married to daughters from the same family call one another *bajanag*. If a man has two wives, they are referred to as *gunu* or *gunubaji*. On the wedding day, the woman who takes the bride to the bridegroom's house is called *yenga*. This dialect term has only one meaning in the Nakhchivan territory and other regions of Azerbaijan: in Turkic populations, this word means *brother's wife* or *uncle's wife*. For respect, the husband's friend's wife is also named with this term. This term is used with its original meaning in the Nakhchivan territory. Given that on the wedding day the bride is taken to the bridegroom's house by the nearest and eldest relatives, it shows that this word connects both meanings.

Very representative word “*yenga*”, as it was mentioned above, is one of the words connected with the early development period of

the language. Initially, the word “yenga” in dialect meant “elder brother’s wife”, but its meaning has since expanded. Now, it means the woman who takes the bride to her husband’s house. As it was also mentioned above, during wedding ceremonies, it also refers to the elder bride, or the elder brother’s or uncle’s wife. In “Ancient Turkic Vocabulary” [4] and Ibn Muhanna’s vocabulary, “yenga” means “elder brother’s wife” [16].

In Azerbaijani accents, the word “yenga” means “the woman who takes the bride to her husband’s house” or “elder brother’s or uncle’s wife”. In the accents of Tovuz, Kazakh, and Borchali, “elder brother’s or cousin’s wife” is called “yenga”. Similarly, in the accents of Boyuk Garakilsa, Garakilsa, Basarchechar, Shaki, and Zagatala, “elder brother’s or cousin’s wife” is also called “yenga”.

Some relationship terms are formed with the -liq affix, while others are created morphologically. For example: atalıq (step-father), analıq (step-mother), qızlıq (step-daughter), oğulluq (step-son), övladlıq (step-son). All these terms express *step-relationships*. Additionally, terms such as qardaşlıq (brotherhood), bacılıq (sisterhood), and dostluq (friendship) are formed with the -liq affix, denoting friendship and sympathy.

According to tradition, the best and most sacred relationship is kirvalich. Native families who entrust their sons to each other’s care call one another kirva, while the kirva’s wife is named kirvadostu or kirvajani (in Ordubad). Sometimes dialect terms have unique meanings and usage boundaries, so in nearby villages, the same term may express different meanings.

In some of Azerbaijani regions and villages, the most respected man of a tribe or kin is called mirza, dadash, aqa (Bichanak), qagha, etc.

Though some of the dialect terms noted above are in general use, others are used only within certain families. Investigations show that traces of historical periods exist in words used by families living in mountain villages or in dialect-specific terms [8].

When the oldest men are amazed by the intelligence of a baby or a young child, they say: “Look at him, as if he’s an aka-buka (or aka-uka) man”. When we investigate the etymology of this phrase, we find that in Uzbek, “aka-uka” means elder brother [6], and in Uyghur Turkish, “uka” means elder [6]. This shows that the expression has been preserved among the population, maintaining the same lexical-semantic and phonetic form and meaning among Turkic people, and is used to signify similarity.

The term dadash is also of interest. In Turkey, especially in the Erzurum province, this term means elder brother. Generally, in the East, it can also refer to a brave, strong, fearless young person, or daliqanlı and babaigid [15].

Another word - aba - in ancient Turkic languages meant *house midwife*. It still exists in Anatolian Turkish as “ebe” [15], sometimes used to mean mother or grandmother. In Bashkir, it is “abi” [7], in Turkmen [6] and Kazakh variants - as “ene”, and in Kyrgyz as “aye” [6]. In many Turkic dialects, the words “aba” or “abavayın” [15] mean *parent*, referring to both *father and mother*.

Applying terms to family members and relatives without using their names, as kept from ancestors in Azerbaijan, reflects the cultural heritage and respectful approach to elders in this nation. According to tradition, the way the first son of the family addresses elders sets a precedent for the younger siblings, becoming a custom and sometimes a general term for the entire tribe. When babies begin to speak, Azerbaijanis must teach them to speak according to national principles and cultural foundations, never addressing relatives in a foreign language.

A brief overview of the modern condition and ethnic composition of relationship terms in the dialects of the Nakhchivan Autonomous Republic provides insight into the general view of these terms. There are many Turkic-Azerbaijani elements in the regional dialects and accents that have not yet

been explored or investigated. These elements play an important role in understanding the ethnography of the Azerbaijani people and defining the history of Azerbaijani literary language.

#### ***Ethnolinguistic Analysis of Some Homonym Word Roots in the Dialects and Accents of the Nakhchivan Autonomous Republic***

To understand the modern nature and structure of a word, it is essential to follow its semantic evolution. Reconstructing the ancient meaning of a word is necessary for thorough and accurate analysis. Ethnolinguistic investigation of Turkic languages and their dialects can help clarify many complex historical matters. Dialects, being less influenced by other languages, preserve words and terms from various stages of language development, making their vocabulary a valuable and reliable source. Considering this, the comparative-historical investigation of homonym word roots in Azerbaijani dialects, alongside extant Turkic languages (such as Turkish, Uzbek, Khakas, Turkmen, Yellow Uyghur, Tatar, Bashkir, Uyghur, Chuvash, Karakalpak, etc.), includes materials from various sources. This research also examines languages from the Middle Ages, such as Bulgar-Khazar, Pecheneg, Oghuz, and Kipchak.

In the Azerbaijani language and its dialects, as well as in related Turkic languages, the word “ballyhoo” is expressed with the root bases -kü, -qu, -ğu, or -gu. For example, in the “Explanatory Dictionary of the Azerbaijani Language”, many words that mean ballyhoo, noise, scandal, wind, or the imitation of animal or bird sounds are formed with these root bases: *küy* (noise), *küy-kələk* (commotion), *küyçü* (rowdy), *küy-qalmaqal* (uproar), *gurultu* (thunder), *küşkürtmək* (to hound at), *küş-küş* (hushing sound), *küşildəmək* (to rustle), *küşültü* (rustling), *külək* (wind), *quq-qu* (bird call), *qurt-qurt* (croak), *qurultu* (roar), *qışqırdı* (crying), *guppultu* (thud), *gurlamaq* (to thunder), *gurhagur* (thunderously), *gumbultu* (crash), *gumurlanmaq* (to mumble), *qurbağa* (frog).

These examples demonstrate how these root bases are used to form words related to sound and noise in the Azerbaijani language and its dialects.

We must also note that in many Turkic languages, the organ for hearing - “ear” - has quite similar denotation. This process is observed, in particular, in Mahmud Kashgarli’s and Ibn-Muhanna’s vocabularies. Let us make some comparisons: *qar-qur*, *qi*, *qıqırdı*, *qıqırışdı*, *quri quri* [17]; *kiğirğici*, *kovuk* [22].

Comparing with materials from Turkic languages, we also find: *kurqe* (thunder) in the Oyrot language, Kumandin, and Tatar-Chalkan dialect; *kuyqelek* (ballyhoo) in the Oyrot language, Tatar-Chalkan dialect; *qısır* (barrener), *quchqur* (to cry) in Uyghur language and its dialects; *kanira* (to cry) in Oyrot language and Kumandin dialect.

It is known from linguistic literature that voice imitation lexicon played an important role in the development of the vocabulary of many languages, including Turkic languages. For example, it is noted in “The Etymological Dictionary of Turkic Languages”: “... ancient voice imitation lexicon is the basis of all the verbs noted above, belonging to the first stage of the Turkic lexicon for its economic importance”.

As the minor morphological forms in the verbs were represented, the existence of the passage base must belong to the first stage of the Turkish language. A. Zayonchkovski separated “ma, ba” mimemes. It is possible they could have kept and saved the forms *mele* (Turkish) and *mala* (Azerbaijani).

The first noted decorated bases (lexical roots) of verbs are formed from imitation verbs such as -ir, -ur, and with the help of the universal affixes -la and -sr. For example, *man-ır-a* and *manla*. In this case, there is no doubt that these root-bases belong to the earliest development stage of the language. The dialects and accents of the Azerbaijani language, along with relative Turkic languages and written monuments, support our thoughts: *bilbili* - baby calf (Ordubad dialect of Azerbaijani), *bilbil* - duck baby (Julfa accent of Azerbaijani), *bili* - duck baby (Nakhchivan

dialect of Azerbaijani), mōnire - sheep (Yakut language), moro - (Kyrgyz language), mora - (Uyghur language), man - four-year-old sheep, mangradi - cried (Mahmud Kashgari)

These examples illustrate that in Turkic languages, voice imitation lexicon played an active role in word creation. The investigated -qu, -ku, -qa, and -ka word roots are from this tradition.

It is known from the literature that -ku/-qu lexicon in many Turkic languages means "water". The facts gathered from Azerbaijani and related Turkic languages support this understanding. Let us compare: *Quyu, kuyu* - (well) - used generally in Turkic languages; *Qubaa* - (water bay) - in Yakut language; *Qur* - (ice crumb) - in Karakalpak language; *Kuyulqaak* - (water whirlpool) - in Oyrot language, Tat-Chalkan dialect; *Kustur* - (to cause to flow) - Azerbaijani language, Oyrot language, Tat-Chalkan dialect; *Kuduk* - (well) - in the Pre-Uss dialect of Uyghur language, Karakalpak dialect of Uzbek language; *Qanturdu* - (to overcome thirst) - M. Kashgari; *Qanov, qanov* - (small canal) - Iravan accents of Azerbaijani language; *Kitira* - (liquid from the breast of a pregnant animal) - Iravan accents of Azerbaijani language; *Kilif* - (small canal below the yard) - Iravan and Ordubad accents of Azerbaijani language; *Qaq* - (a small pool) - M. Kashgari; *Kuy* - (damp place) - Shahbuz accent of Azerbaijani language, etc.

When addressing the phonetic variants of the water lexicon, K. Guliyev notes many words formed with the *qu/-ku-, qa/-ka-* root basis in Azerbaijani dialects. The author also considers that this lexicon signifies water.

The etymology of the -Kuu kiji Tatar-Chalkan ethnonym, introduced by N. Baskakov, is particularly intriguing. Baskakov explains, "Chalkans" have been named "Tatars of the Gu bird" after the Qu (Kuu) river, meaning "the men of the Gu river (Kuu kiji)" [3].

Continuing with this theme, it is essential to note that in many Turkic languages, Guu means "Gu bird". Considering that the gu bird is a water-dwelling bird, it logically follows that "Gu bird" refers to a "Water bird". Additionally, Ibn-Muhanna referred to the gu bird as koghū in his vocabulary. In our opinion, the Kuu phonetic variant is the original form preserved in the ethnonym. The linguistic analysis of ethnonyms is crucial because they preserve the historical forms of languages.

Another linguistic fact that draws attention is connected with the water semantics of the root "Gu\ku".

In Mahmud Kashgari's vocabulary and many other Turkic languages, the word "kum" means "shore sand". In Ibn-Muhanna's vocabulary, another meaning of this word is "sea wave". In the Khalaj dialect of Azerbaijani, this word means "aryk". In our view, this variant is the primary one. "Shore sand" is a subsequent variant, indicating the material brought to the seashore by sea waves, because the "-ku" root signifies water in lexica (we will revisit this lexical unit in our detailed analysis).

Among the words listed above, there are several variants with "-ka\qa", which means water. As it is known, in ancient Turkish language, the word "-Ka" means durable.

Let us compare the following: "*Kati, qati, kadu, kaduu, kadiq*" - meaning durable, firm; "*kaya-qaya*"; "*kadizin*" - to become solid; "*koyu/qatu; qalın/kalın*" - thick. This difference is evident in various food names: "*korot, kurut, qurut*" (sour milk frozen for winter, dried yogurt, cheese) in the western dialects of Azerbaijani language, Bashgird language, Tatar-Chalkan dialect, Chuvash language, Toj dialect of the Tuva language, Gar accent of Uzbek language, Ibn-Muhanna's vocabulary, Tatar language and its dialects, Prius dialect of Uyghur, Kumand dialect of Oyrot language. Additionally, one should mention "*qatikh*" (fried meat for preservation) in Ordubad accent of Azerbaijani language, "*kaymagh*" (cream) in Azerbaijani language and its dialects, Bashgird language, Tatar-Chalkan dialect, Chuvash language, Toj dialect of the Tuva language, Kar accent of Uzbek

language, Ibn-Muhanna's vocabulary, Tatar language, Prius dialect of Uyghur language, and also "*kayabuk*" (sour cream) in Tatar-Chalkan dialect, "*kuyultmaq*" (mixture of sour and sweet milk) in Tatar-Chalkan dialect, "*kuzam*" (flour porridge) in Tatar-Chalkan dialect, "*kolomuok*" (flat cake) in Yakut language, "*kuvurdaq*" (meat dish) in Tatar language, etc.

As one can observe, the ancient Turkish root "*ku\qu*" underpins the names of watery foods mentioned above, while the "-ka\qa" root forms the basis of dry food names. In our view, this fact is directly linked to the semantic essence of these roots [14].

The "-ka\qa" root basis in the meal names of Azerbaijani dialects pertains to the category of dry foods mentioned earlier. We believe that the semantic distinction between "-ku\qu" and "-ka\qa" emerged later, affirmed by linguistic evidence. The roots themselves belong to the earliest stages of language development. The examples cited above demonstrate that in the subsequent development stages of ancient Turkish, "*kuu-*" came to signify water, while "*ka-*" denoted solid food. This lexical evolution actively contributed to word creation in ancient Turkish. For instance, this evolution is reflected in certain organ names: "*qarin*" (belly), "*qursaq*" (abomasum), "*qan*" (blood) (in Oyrot language and its dialects, "stomach"), "*qatqat*" (digestive organ situated between the belly and stomach of animals) (in Jabrayil, Kurdamir, Shamakhi accents of Azerbaijani language), "*kuuk*" (urine pouch) (Tatar-Chalkan dialect). These lexical units predominantly denote organs associated with digestion. It is noteworthy that in many Turkish languages and ancient written records, the vessel in which food is cooked is termed "*qazan*".

This ancient lexical unit has left its mark in Azerbaijani tales. For instance, in Malikmammad's tale, the bird Zumurud tells Malikmammad, "When I say 'qu', give me water, but when I say 'qa', give me meat".

As mentioned earlier, it is necessary to reconstruct the most ancient meaning of this lexical unit for thorough analysis. Alongside this, a new important question arises from a linguistic perspective: the phonetic variants that hold ethnolinguistic significance. G. Kazimov's ideas on this topic are intriguing: "Speech sounds tend to remain stable, with less change over time, while vocabulary composition sees more development and innovation" [13]. In the investigated lexical units, we observe phonetic changes like  $\backslash-k -q\backslash$ , which are typical in Turkic languages. It is known that Turkic languages exhibit initial consonant alternations and variable conditions of voiced consonants.

Generally, the complete phonetic structure of Turkic languages indicates that in ancient times, the number of phonemic consonants was very limited. Many consonants that are distinct in modern Turkic languages were grouped into distributive units in ancient times, such as *j-y* (*dy, ty*), *ny-n*, *b-p-m*, *z-s*, and so on, representing pairs of voiced and voiceless consonants.

For example, in modern Azerbaijani dialects, M. Shiraliyev notes the phenomenon of the transition from the "-k-q" phoneme to the "-q" phoneme in certain words in the accents of Gazakh and Nakhchivan. However, there are differences between these accents in how this phoneme is used initially. In Nakhchivan accent, the sound "q" appears before delicate, closed vowels, whereas in the accents of Sadarak, Sharur, and Kangarli, it is used before thick, closed vowels: "qucha", "qishi" (Nakhchivan accent of Azerbaijani language), "qucha", "qichchikh", "qunj" (Ordubad dialect of Azerbaijani language).

N. Baskakov, who investigated the "Gu bird" in Tatar-Chalkan dialects, notes: "In the Chalkan dialect, literary Altay language, and other dialects, the distinction between voiced and voiceless consonants as independent phonemes is less pronounced, and they do not have complete differentiation. This is especially evident in pairs of voiced and voiceless consonants such as  $\backslash b-p, \backslash d-t, \backslash q-k, \backslash z-s$ ." [3].

This phenomenon is also observed in other Gipchak Turkic languages. For instance, examples can be found in the Karluk

dialect of Uzbek language: “*kurak-kuraq*” (*shoulder-blade*), “*yurak-yuraq*” (*heart*). D. Nasirov compared materials from the Garagalpag language with Mahmud Kashgari’s vocabulary and noted: “There are certain agreements between the language and dialect in terms of consonant and vowel patterns in the vocabulary. The most significant among them is the agreement between voiced -q\ -ğ\ and voiceless -k: ‘*bukte-buqde*’, ‘*bishik-bishigh*’” [19].

The prevalence of the voiceless variant is evident in some of these agreements: “*kargha*”, “*kumush*”, “*kirpi*”, “*kerpich*”, “*kertti*”. Conversely, the voiced variant predominates in the dialects of the Garagalpag language. This appears to be a heritage of Oghuz: “*qeme*”, “*qopu*”, “*gharqa*”, “*qumush*”, “*qertti*” [19].

Conversely, the opposite process is observed in the Oghuz group of Turkic languages. Continuing this theme, it is important to note that A. Gemalmaz, who investigates the Erzurum dialect of Turkish, notes that palatal consonants are voiced at the beginning of the word. For example, -k-g. Similarly, F. Yildirim, who studies the accents of Adana and Osmaniye, observes similar facts: “We often encounter the change of -k-g\ at the beginning of syllables in our regions: ‘*eski-esgi*’ (ancient)” [10].

Thus, from linguistic literature, we understand that the comparison of initial consonants is typical for the Gipchak subgroup of Turkic languages, whereas voiced consonants are typical for the Oghuz subgroup. The materials from the Bashgird language, which belong to the Gipchak subgroup, corroborate these observations.

Ethnolinguistic analysis confirms that the prevalence of initial voiced consonants in the lexical units of Azerbaijan dialects, as noted above, is a typical feature of Oghuz languages. However, we are particularly interested in the homonymous features of this root. If we consider that the roots of \ku\ - kü\ -k\ - qu\ - qa\ - gu\ - gü\ words are homonyms, logically a new question arises: what ancient semantics allowed for such a rich diversity in word creation?

It is noteworthy that in some words, both meanings - voice and water - are preserved and maintained. This condition is illustrated by examples such as “*kushultu*” - the sound of sea waves (in Azerbaijani literary language), and “*qurt-qurt*” - croak in the stomach (in Azerbaijani literary language).

There is reason to believe that initially, lexical units such as \ku\ - kü\ -k\ - qu\ - qa\ - gu\ - gü\ reflected natural events themselves (such as thunder, wind, etc.) and also expressed the commotion caused by water. Over time, these lexical units began to narrow in semantic scope and independently express natural events. Subsequently, they underwent phonetic changes in different Turkic languages, leading to the creation of a series of homonymous words.

Semantics of certain words used in the dialects and accents of Nakhchivan vary significantly. Dialects used in limited areas belong to different lexical groups, where sometimes words with the same phonetic composition do not convey the same meaning. There are instances where the etymology of these words cannot be explained solely based on Turkic language materials. In such cases, it becomes necessary to consult materials from Caucasian-Iberian languages. This is because some dialects and accents of Azerbaijani language exhibit characteristics shared with Caucasian-Iberian languages.

Some words express relationship dynamics used in limited areas, are often unfamiliar to younger generations, causing their meanings to become narrowly understood. These words can only be explained descriptively. For instance, “*gunu*” refers to two wives of one man who are named after each other. “*Guda*” signifies the reciprocal relationship between the parents of a married son and daughter. “*Yenga*” denotes the woman who escorts the bride to the groom’s house or the brother’s wife. “*Kurakan*” or “*giyav*” (used in Kazakh, Zagatala, and Gakh accents as “*Göm*” or “*goyum*”) refers to the daughter’s husband.

“*Bajanakh*” denotes the husbands of sisters, and “*yezna*” refers to the husband of one’s sister. The presence of additional affixes indicates the ancient origins of these words.

In various Turkic languages, “*guda*” appears as “*guda*” in Turkmen, “*kuda*” in Kirghiz and Kazakh, and “*kuda*” or “*kudaji*” in Tura and Oyrat languages. Similarly, “*kurakan*” appears as “*kuyey*” in Kazakh, and alongside “*giyav*” in Nakhchivan dialects and accents, “*kudaa*” in Tuvan, and “*kuyoo*” in Kirghiz. “*Yenga*” and “*elti*” are found in Turkish, with “*elti*” also used in Turkmen. “*Yezna*” is found in Kirghiz and Bashgird languages, where interestingly, the husband of the younger daughter is called “*geyau*”, while the husband of the elder daughter is called “*yezna*”.

These words reflect ancient farming practices, life, and cultural norms, occupying an important place in the vocabulary of Azerbaijani dialects and accents. Words related to ancient measurements, months, and day names are part of this lexical lineage. Terms like “*khish*”, “*jut*”, “*ulama*”, “*jahra*”, “*kirkira*”, “*aldayirmani*”, and “*shadara*” include names of historical tools and instruments.

Ancient names for measurements pique interest, such as “*batman*”, “*maghar*” (in many dialects and accents), “*ismil*”, “*uruf*”, “*arva*” (a measure of weight), “*charakh*”, “*gulaj*”, and “*shaklam*” (half-filled large sack, wooden cask, or dagga).

Names of days and months connected to ancient farming practices are noteworthy. Before Soviet rule, Azerbaijani’s literary language and its dialects used month names associated with Islam, such as “*shaban*”, “*ramazan*”, “*maharram*”, etc. Words borrowed from Persian include some days’ names like “*seshanba*”, “*yekshanba*”, “*dushanba*”, “*panchshanba*”, etc. Prior to the adoption of Islam, many day and month names in Azerbaijani language were linked to agriculture. Some of these names faded from literary use under the influence of Islam but remain in the lexicon of Azerbaijani dialects and accents today. Examples include “*chilla*” (elder, little), “*kechigiran*” (goat-slaughter), “*gorabishan*”, “*guyrug doghan*”, “*guyrug doghan*”, “*payiz*” (autumn), “*jebran kolgaya galan ay*” (the month when the gazelle seeks shade, the second month of autumn), “*kalavaz*” (the third month of autumn), “*gilas*” (the month of sweet cherry ripening), “*leysan*” (the rainy spring month), “*madakhil*”, “*oghlakhgiran*” (March), “*khazan*” (autumn in Ordubad), and “*adina/adna*”.

These words provide insights into ancient farming practices and cultural traditions, preserving their significance in the linguistic diversity of the region.

Day names associated with the nomadic lifestyle of the past, such as “*duz gunu*” (day to give salt to cows) and “*sut gunu*” (milk-giving day), illustrate the weekly cycle used in the Novkhani accent of the Baku dialect. For instance: I gun - sut gun (milk day), II gun - danna of milk day, III gun - danna of danna, IV gun - the day to cook gatlighi plov (a specific dish), V gun - the little Friday, VI gun - the day the nomadic family moves, VII gun - milk day again.

Certain dialectal words used in limited areas within Nakhchivan dialects form an important system. These words can be categorized under different lexical, semantic, or thematic units found in the Azerbaijani language. For example, words related to cattle-breeding include: “*pushgurt*” (heading to the mountains after harvest), “*mal damnan chikhan vakhti*” (day when cows leave the cattle shed, last month of autumn), “*yayilan vakhti*” (early morning taking cattle to pasture in spring), “*mal yellanan vakhti*” (early morning grazing of cattle), “*dol vakhti*” (insemination), “*mal-gara orushdan donan vakhti*” (time when cattle return from pasture, 6-7 o’clock in the evening), “*mal-gara saghini vakhti*” (cattle milking time, 8-9 o’clock in the morning), “*mal saghini vakhti*” (cattle milking time, 8-9 o’clock in the morning), “*goyun saghini vakhti*” (sheep milking time, 1 o’clock in the daytime), “*guzu amisha galan vakhti*” (time when lambs come to suckle, 2-3 o’clock in the daytime), “*gunduz vakhti*” (time when sheep are brought to graze autumn seeds).

Words related to taxation used in Azerbaijani dialects and accents include: "bidax", "dinmar'y "vakhti" (land tax), "chanbashi" (tax for cattle), "manzil" (house tax), "gira qoyma" (Ord.), "salat puli" (small tax), "biyar", "su vergisi" (water tax), "tustu vergisi" (fumigation tax), "torpagbasdi", "galla", "beshda bir", "toyju" (mavji), "bahra", "janpulu" (bashpulu), "yer pulu", "desetin pulu", "otbashi" (tax for pasture), "masraf" (tax for village services), "rayin" (free service to landowner).

Words indicating duties, ranks, and social status include: "khan", "bay", "bag", "bed", "agha", "ranjbar", "nokar", "nokarchilig" (farm laborer, servant), "kandkhuda", "kokha", "yuzbashi", "chovush", "mugrug", "murov", "darabayi", "galabayi", "meshabayi", "baylarbayi", "gomurnat" (gubarnat), "nachannik", "pristav", "garadovoy", "uradnik", etc.

Social ranks that existed in villages in ancient times were categorized as: 1) "varli" (rich), 2) "orta" (middle), 3) "ayakh" (foot); and 1) "bas" (head), 2) "orta" (middle), 3) "ayakh" (foot).

Words related to elections include: "sharsaldi", "dashsaldi" (Nakhchivan), "tasseled" (sal). Turkic peoples have a rich and ancient history, forming a significant part of different geographical conditions across Asia and Europe. Turkic languages are distinguished by their structural features, which set them apart from other languages.

There is a noticeable similarity in the lexicons of all Turkic languages except Chuvash and Yakut. This similarity also extends to certain limited-use dialect words.

Particularly noteworthy are the intriguing similarities between Turkish literary language and Azerbaijani dialects and accents, which become apparent through comparative studies. For instance, in the Nakhchivan dialects and accents of Azerbaijani, the open area surrounded by a fence where cattle are kept during the summer is called "Aghil". Similarly, in Turkish, this term refers to the surrounding open area used to shelter animals such as sheep and goats [2].

"Aghil" refers to the place where cattle shelter, as documented in the Ancient Turkic dictionary [1]. This term is also used in the "Kitabi-Dada Gorgud" epic to denote a place for sheltering sheep. For example, "He closed the door of the aghil; Dali Garchari yalinjig eyiladi agla qoydu" (He abandoned Dali Garchari's weapon and confined him in the aghil). The word "Alchakh", originating from Kazakh, is also used in Turkish literary language to denote a volunteer or someone who willingly takes on tasks. For instance, "Urusdamin yakshshi khasiyyati var, alchakh adamdi" (Urusdam has good behavior; he is an alchakh man) [2].

"Shagga" refers to half of a cow or sheep's body and is used in both literary Azerbaijani and various dialects and accents. Interestingly, in Nakhchivan dialects and accents, "shagga" is also used to refer to a tribe or relative.

It is possible to find these words in some Turkic languages. For instance, "tira" is used in Turkmen [12], "torel" in Tuva [12] and Oyrot languages [4], all meaning "tribe". The word "oymak" appears in Turkish as "oymak" and in Tuva as "aymak" [12].

It is necessary to note that in many regions, tribe names that originally indicated blood relationships have evolved to mean "quarter".

The limited-use dialect words constitute an important part of the lexical composition of the Azerbaijani language. They belong to different lexical-semantic and thematic word groups. The following are examples of these limited dialect words:

- Ahgnakh (the lake or bog where buffaloes sleep) – Ahgnaghin suyu chox chixli olur (the water of the ahgnakh is very dirty) (Qshl); Kallar ahgnakhda yatir (the buffaloes are sleeping in the ahgnakh).

- Aghil – cattle-shed – İneyi aghila baghliyif gavaghina ot tohdu (he put the cow in the aghil and gave it grass).

- Aghuz (used in all villages) – the meal prepared from a cow's first milk after giving birth – Bi qazan aghiz bishirmişdim, hamisini payladım (I cooked a cauldron of aghuz and shared it with everyone).

- Qish galir, mallarin da bi changa otu yox (winter is coming, but the cows do not have even a piece of grass).

The lexical unit "yenga" is an ancient dialect word. We encounter this limited-use dialect word in the "Kitabi-Dada Gorgud" epic. In the epic, it means "brother's wife". For example: Qarindashim Qiyani oldurmusham. Aghja yuzli yehgami tul etmisham. ("I have killed my brother Giyan, and my fair-faced yenga has become a widow"). Newly, two distant neighbors became jiji-baji.

Dialectal vocabulary has its specific distinguishing features. Compared to the literary language, dialect vocabulary provides a shelter for these unique elements. It is known that the lexical layers of a language consist of words from different historical periods. The composition of the general vernacular consists of different layers that vary from one another. Accents differ among these layers, preserving and maintaining the elements of the ancient layer of the language within their vocabulary.

Archaic words constitute an important part of the lexical composition of Azerbaijani dialects.

"Tolazlamag" means "to throw". Though "Lala" is a limited-use dialect word, it expresses various meanings in different regions. It is used in the Dialectological Vocabulary of Azerbaijan [2] with the same phonetic composition but different meanings – in particular, "Lala I" – father, elder brother.

"Nolar" is used in Nakhchivan dialects and accents as the equivalent of the question word "na olar" in the literary language. "Garamat" means bad intention, bad luck, sorrowful, or always thoughtful in Kazakh and Salyan dialects [2].

"Keyimak" means to become numb, not feeling, or to lose one's feeling. "Gimirlamag" means to throw in Kazakh dialects. In the same dialect, "hanjari" means how. "Eyni achilmag" means the improvement of somebody's mood or to feel well. "Sirvanmag" is a negative word referring to an action typical of cats and dogs. "Amba" in Kazakh dialects is used as the equivalent of the word "amma" in the literary language. Similarly, the word "hanjari" has the variant "həncəri".

Some lexical units were once limited-use dialect words but later began to be widely used and transitioned into the literary language. Examples include "yapinji" (cloak), "keyimak" (to become numb), "sanballi" (heavy), "alachig" (nomad tent), and "garamat" (bad intention or luck). The use of the protagonist, nuanced meanings, and richness of dialect words appropriately demonstrates the creative ability, worldview, and knowledge level of the authors of a literary work in Azerbaijani language.

#### Literature:

1. Ancient Turkic dictionary. (1969). Leningrad: LGU, pp. 18-677.
2. Azerbaijani dialectology dictionary. (1999). (Vol. 2, Vol. 1). Ankara: Kılıçaslan Matbaacılık Ltd.
3. Baskakov, N. A. (1985). *Dialect of Lebedinsky Tatars – Chalkans*. Moscow.
4. Baskakov, N. A., & Toshakova, T. M. (2005). *Oirot-Russian dictionary*. Gorno-Altay: Ak Chechek.
5. Binnatova, G. (2007). *Lirik region accents of Azerbaijani language*. Baku: Nurlan.
6. Comparative Turkish dialects dictionary. (1991). (Vol. 1). Ankara, pp. 71-1183.
7. Comparative Turkish dialects dictionary. (1992). (Vol. 2). Ankara, pp. 200-502.

8. Ercilasun, A. B. (2002). *Kars province dialects (Voice information)*. Ankara.
9. Explanatory dictionary of Azerbaijani language. (2006). Baku: East-West, pp. 188-672.
10. Faruk, Y. (2006). Adana and Osmaniye dialects. Ankara.
11. Islamov, M. (1968). *The Nukha dialect of the Azerbaijani language*. Baku: Azerb. EA publishing house.
12. Jafarov, S. A. (2007). *Modern Azerbaijan language. Part II*. Lexika. Baku: East-West.
13. Kazimov, G. S. (2010). *Modern Azerbaijan language*. Baku.
14. Korkmaz, A., & Korkmaz, M. (1994). *Turkish dictionary*. Ankara: Tertibists.
15. Lady of the Prophet Muhenna Luchi. (1934). Istanbul: Aptullah Battal, pp. 86-89.
16. Mahmud, al-Kashgari. (2005). *Divani-dictionary Turkish*. Istanbul.
17. Nakhcivan group of Azerbaijani language dialects and accents. (1962). Baku: Azerb. SSR EA publishing house,
18. Nasırov, D. S. (1977). *Formation of the Karakalpak nationwide spoken language and its dialect system*. Kazan.
19. News of the Azerbaijan Academy of Sciences. (1953). pp. 9-200.
20. Pashayev, G. Sh. (1998). *Iraqi - Turkmen folklore*. İstanbul.
21. The Prophet - the Lieutenant. (1997). Aptullah Battal. (3rd ed.). Ankara.
22. Zeynalov, F., & Alizade, S. (Eds.). (1988). *Kitabi-Dada Gorgud [Kitabi-Dada Gorgud]*. Baku: Jazychy (in Azerbaijani).

**Primary Paper Section: A**

**Secondary Paper Section: AI**



## MUSICAL INTONATION IN THE LINGUISTIC AND SYMBOLIC CONTEXT: FROM SCIENTIFIC REFLECTIONS TO DEFINITIONS

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Abstract: The article examines various aspects of the relationship between verbal and musical languages, in particular, in the symbolic plane. The study traces the historical evolution of scientific knowledge about these cultural phenomena, and also marks the milestones in the development of musicological thought from the point of view of the synthesis of "word" and "music".

Keywords: musical intonation; language; symbol; reflection.

### 1 Introduction

Active use of the concept of intonation in musicology requires clarification of its meaning. This is natural, since this concept, as basic for musical art, musical language-speech, as such, covering various aspects of musical theory, aesthetics, performance, psychoacoustics, etc., is often used in various semantic and analytical contexts.

A significant contribution to the intonation discourse of musicological works is the theory of intonation, presented in the works of B. Asafiev, which is based on the definition of music as an art of meaning that is intoned. The work of this researcher formed a fundamental basis for the formation of the school of musical semantics and became the basis of further musicological concepts in this direction. B. Asafiev proposes to consider intonation as a semantic cell of a certain nature, in which the sign is a musical 'turn of phrase', and the meaning is sense; he notes that "the field of intonations, as a semantic phenomenon, is limitless" [2, p. 355]. From the point of view of manifestation of sound, intonation for the researcher is an expression of a transcendent principle, and from the point of view of understanding sound, it appears as a communicative unit. B. Asafiev especially emphasizes the dynamic nature of intonation, its transitivity from one sound to another, from one intonation to the next, as well as the interdependence of intonation and musical form: "if musical form is the process of discovering music in a regular combination of intoned elements, then we can say also vice versa, that the detection of music occurs through the process of design of the sounding material" [2, p. 25-26].

Due to the fact that musical art has long included synthetic genres such as vocal music, opera, cantata-oratorio art, and other related forms, musicologists in their research have to rely on the verbal-textual part of the work and the musical part as such.

### 2 Materials and Methods

The interdisciplinary focus of the study determined the use of methods from related disciplines. The use of an integrated approach allowed considering the semantics of musical language from musicological, historical-cultural, and socio-psychological perspectives.

The phenomenology of the study is based on the position that the theory of musical meaning should be differentiated into three levels of study: the level of primary musical material, the level of musical structure, and the level of interaction of musical art with cultural discourse.

### 3 Results and Discussion

In the second half of the 20th century, the understanding of intonation declared by B. Asafiev developed in the works of other researchers, among whom it is worth mentioning V.

Medushevskiy, V. Kholopova, Yu. Kohn, M. Aranovskiy, V. Moskalenko, I. Pyaskovskiy, and I. Barsova.

V. Medushevskiy, defining intonation as the "breath of music", the background and real basis of music [9, p. 195], emphasizes, firstly, its integrity, secondly, the ability to typify and generalize through constant repetitions. In this regard, the researcher notices that intonation is characterized by indivisibility, orientation towards content, unity of all aspects of sound (combination of melody, rhythm, timbre, harmony, etc.). That is, integrity is the central property of this phenomenon. At the same time, V. Medushevskiy emphasizes that "... only meaning is able to keep different aspects of intonation from running away - timbre, height, articulation, loudness, which are changed in a certain rhythm and tempo" [9, p. 167]. At the same time, the researcher establishes that the stereotypes manifesting themselves in musical intonation reproduce generalized ideas that are the legacy of a huge artistic experience, are the anchoring of the meanings of intonation in the public consciousness; he emphasizes the fact that short turns contain in a concentrated form a great experience of human knowledge of musical eras, genres, styles. Musical intonation as a communicative unit interacting with musical memory contains certain information in which "the semantic component is primary, and its sound body is secondary" [9].

M. Aranovskiy considers the concept of intonation from the perspective of textual problems and defines it as the main carrier of musical semantics. In the basis of intonation, the scientist notes the presence of a combination of expressive and meaningful pronunciation, the strengthening of the formal factor in an extratextual context, when intonation is perceived as a "stable lexem", a thematic "fragment" that flew into the text from the intertextual "space", entering into the composition of the motif, phrases, sentences [1, p. 331-333]. Thus, from M. Aranovskiy's point of view, intonation is a meaningful element of a musical text that performs a variety of functions, including semantic, semiotic, and communicative.

The semantic significance of intonation is also emphasized in the works of I. Pyaskovskiy. Investigating intonation within the framework of the "composer and folklore" system, the scientist notes its importance, primary importance in intertextual interactions, in the creation of a single polystylistic space of the work, as a combination of neo-romantic, expressionist, impressionistic modal-harmonic means with specific folkloric modal intonations [11, p. 57-58].

The understanding of intonation as "expressive-semantic unity that exists in a non-verbal sound form which functions with the participation of musical experience and extra-musical associations" is the basis of V. Kholopova's concept [7, p. 45]. In her works, the researcher also develops the concept of general intonation (V. Medushevskiy), as the main generalizing intonation of the entire work, for which emotional-meaningful and emotionally-expressive integrity, conceptuality become the main features. The ability of the general intonation to condition the entire work, its main idea, makes it adjacent to the concept of performance interpretation. Through it, the manifestation of the author's principle, the individual manner of the artist, the original interpretation of both the artistic-aesthetic and technical sides of the work, leads to the figure of the composer. According to V. Kholopova, it is characteristic for general intonation to differentiate according to the themes that make up the work, in the form of the smallest in duration formations that have historically formed as musical-semantic units, according to intonations extending into a motif, rhythmic formula, syntactic phrase.

The presented approaches to intonation intersect with each other in the understanding of intonation as an indivisible unit, which is characterized by expressiveness and meaningfulness. This interpretation of intonation brings to the fore the problem of the

musical sign, which was developed in the works of Y. Kohn, V. Medushevskiy, V. Kholopova, S. Maltsev, K. Ruchyevska, G. Taræva, M. Bonfeld, B. Yavorskiy, D. Kuk, O. Kozarenko, S. Ship, and many other scientists. Researchers, trying to determine what a sign is in music, consider it as a starting model for building a music-semiotic system and provide a number of different definitions - from the definition of a sign as a formation characterized by polyvariance and polysemanticity (Y. Kohn) to understanding it as any segment of sound or text that stands out among others and is in mutual relations with them (syntagmatic, paradigmatic ones), that give rise to its semantics (O. Kozarenko). The definitions also stretch from the approach to the musical sign as a logical closed system of musical matter, representing a minimal descriptive formation, at the level of which it is possible to highlight all the necessary elements (I. Ignatchenko) to understanding it as a specific musical and lexical cliché that has a clearly fixed structure (H Tarayeva). There are also definitions of the sign as an invariant and relatively stable unit of the text, which has a stable meaning and is manifested in the formula, stability of the structure, as well as in the ability to maintain a constant connection between the sign, the meaning and the sense born with its help (L. Shaimukhametova). It is also understood as a stable phrase that forms the intonation dictionary of a musical era, composer's style, musical work and reflects certain mental processes (D. Cook), as a formation that always contains information about an emotion, which acts as a denotation of a sign (S. Maltsev), as a complete formation with a fixed meaning, that has a whole range of substantial characteristics and is capable of being a carrier of meaning (I. Pyatnytska-Pozdniakova), etc.

V. Medushevskiy approaches the musical sign as "a material acoustic formation designed in a specific way, which performs the following functions in music (one of them or all together): awakening ideas and thoughts about world phenomena, expressing an emotional and evaluative relationship, influencing the mechanisms of perception, indicating the connection with other signs" [10, p. 10]. The researcher offers his own typology of signs, differentiating them into analytical (related to musical grammar, i.e., norms and rules of combining sound elements) and syncretic (intonation signs). At the same time, V. Medushevskiy emphasizes that the former are usually related to one plane of musical means (only to harmony, rhythm, etc.), while the latter cover all aspects of the means of expression [10].

V. Kholopova, based on the semiotic developments of Ch. Peirce, formulates the "pentad theory", which is a system of five main types of intonations: emotional, pictorial, genre, stylistic, and compositional. The latter, in the opinion of the author, include all those general musical elements with the help of which the composer creates, as it were, "builds", his individual musical composition. The musicologist also talks about the peculiarities of the embodiment of extramusical semantics, which occur with the help of icon signs (embodying emotions), index signs (phenomena of the objective world), symbolic signs (ideas) [7]. A. Kudryashov supplements the list of extramusical signs of V. Kholopova with intramusical or relative signs (A. Kudryashov's term). The researcher singles out intratextual and intertextual relations, which he divides into three groups, such as similar, derivative, and distinctive [8]. This fourth group, discovered by A. Kudryashov, is determined by the immanent properties of music, unlike the one proposed by V. Kholopova.

According to O. Samoilenko, the objectification of "cultural-historical time" with the help of specific signs, primarily genre-stylistic, but also style-backed - those that have already become a kind of "genre norm" - is one of the most relevant criteria for arranging musical sound. Understanding musical signs as "subject-structural ingredients of music", the musicologist defines their special dichotomy as their main property [12, p. 88]. It consists, on the one hand, in their appeal to the genre definition, on the other - in the stylistic interpretation of the known, actual, and possible genre content. "The first - primary - symbolic side of music testifies to the metaphorical properties of sound as an image of music lying "on the other side" of reality; the second - secondary - reveals the metonymic abilities of

sound creation as a "nominee" of a new musical reality" [12]. The latter, emancipated thanks to the linguistic activity of music, form a special branch of music symbolism.

The researcher emphasizes that a style sign as a set of stylistic techniques is the most specific, "pure" form of "musicality", that is, the "self-talk" of music. However, this also shows the dialogic nature of the interpretation of the sign. O. Samoilenko emphasizes that, no matter how free the style is, it always "remembers" the genre: it is its "secret" memory, "secret" name, hidden connection. Thus, "genre relations are also involved in the orbit of musical symbolism, but in a deeply mediated form - as "own" special memory of the conditions, reasons for the birth of this form of music and the accompanying type of musical expressiveness of the "sound idea"" [12, p. 89]. O. Samoilenko sees the subordination of the symbol in music as a compositional structure to two opposing tendencies. First, it strives for iconic relief, object brightness, accessible, "easy" to perceive emblematicity, laconicism, conciseness of presentation that emphasizes "materiality", material "weight" and persuasiveness of reception. Secondly, it is characterized by its semantic length, ramifications, and orientation towards the ever-increasing historical coverage of the semantic functions of this compositional technique, towards its universal significance as a carrier of spiritual value, "fulfilled spiritual meaning" [12].

S. Ship's approach to the study of signs is conditioned by important aspects of the theory of musical language. At the same time, significant attention of the researcher is paid to the definition of the differences between the musical language and the verbal language. In his opinion, "the specificity of a musical sign consists not only in the metric arrangement of its sound form, not only in the exceptionally high possibilities of iconic reflection of processual phenomena of the universe, in particular - human experiences, but also in the system-linguistic environment" [13, p. 128]. The model of the musical language is determined by three levels of language organization, in particular, the basic, normative, and usus level, each of which includes phonological, morphological, and syntactic levels.

Understanding the musical language as a system of "special signs and principles of the organization of musical speech" [13, p. 16], S. Ship focuses his attention on identifying the properties of musical signs, which manifest themselves from three positions - substantive, meaningful, and in the aspect of the system of signs. Among them, the following are the main ones for him: translucency (in the fact that their form can be perceived, but not fully understood); the ability to be incorporated into syntactic and semantic structures (an unlimited number); the presence of aesthetic and emotional content; the presence of symbolic ambiguity and personal content, the inclusion of a musical sign in the communication process within the text structure, belonging to functional rather than structural categories [13, p. 95].

The researcher divides the signs into "isomorphic indices - signs that are causally related to the denotation, whose form is similar to the form of the denotation; anisomorphic indices - signs causally related to the denotation, having no similarity with it; isomorphic symbols (iconic or pictorial signs) - signs intentionally created by man, which are not causally related to the marked phenomenon, but have some formal similarity with it. Anisomorphic symbols (or signals) are man-made signs that are causally unrelated to the denotation and have no formal similarity with it" [13, p. 66-67].

Index signs (representatives of information about the subject and the surrounding reality) and anisomorphic signs-symbols are almost not in demand in the art of music, while the most valuable signs-symbols of the pictorial type, isomorphic (iconic) signs-symbols are found as the most valuable within its limits. A significant place is occupied by iconic signs that manifest themselves in music as imitations, i.e., as those that reproduce sound signs of certain phenomena. These include imitations of the sound of musical instruments, sound imitations of acoustic phenomena that have a signal value. Very rarely, signs within

music appear in their pure form, mixed types prevail. The above determines the following definition of a musical sign by the researcher: it is every element in the composition of a speech artifact (product), as well as the entire artifact as a whole. In addition, in the writings of S. Ship, we come across another definition of a sign as the quality of understanding sound. Both definitions complement each other; the latter clarifies the former.

Summarizing the presented research positions, which represent "extrovertive" and "introvertive" (J. Nattier) musicological approaches, one can talk about the construction of a certain semiotic model of music, placed in a broad informational and symbolic context, in which the main category is a special figurative and semantic unit.

The concept of code, which directly helps it to happen, acquires importance in the process of symbolic communication that occurs in a musical text. It was formed within the sciences of the semiotic-linguistic cycle and attracts the attention of many researchers. N. Viner proposes to understand the code as a system of signals, which can be viewed from two sides: on the one hand, as the most economical, fastest and most effective way of transmitting messages; on the other, as a means of encrypting messages, designed to make decoding information impossible for those who do not know the code. The first type of code assumes that the set of symbols in the code is known to the recipient of the information, which partially simplifies the decoding process and allows the code to be viewed as a metalanguage. The second type of code requires some effort to decipher and delays in decoding due to the need to substitute other symbols instead of data. The researcher notes: "a code or cipher containing a significant amount of secret material is not only such a lock that is difficult to break, but also such a lock that requires a significant amount of time to open it legally" [14, p. 75]. In addition, N. Viner suggests distinguishing two types of code - ordinary and poetic, artistic. Both types of code are transposed into the language branch. The ordinary code, in his opinion, is contained in the language of telegrams, newspaper headlines and subheadings, professional jargon. A poetic code is "a code complicated by symbols, many of which can be decoded into two or more meanings at the same time" [14]. The complexity of the poetic code is due to the fact that the poetic language assumes the presence of a certain duality, when a special code runs parallel to the main semantic code. N. Viner cites as examples the rhythmic organization of the utterance, its sound design, the compositional and structural form of the message, etc. Thus, the poetic language is "a special code in which special methods of presenting information are implemented, and this information itself "is not always equally interpreted"" [14, p. 75].

R. Barthes approaches the code as a product of culture, as to specific forms of cultural transmission in the form of books, education, all kinds of public relations. The researcher defines the code "as a space of citations", "a range in which all kinds of cultural voices are located", "a mirage woven from structures" [3]. R. Barthes offers a more extensive typology of codes and divides them into: prophetic and hermeneutic; connotative, referential (cultural), and symbolic. The first group is directly related to the work as a complete structure, describing the structure and development of the plot. The second group is designed to unlock this construction and introduce it into the field of text.

Later, returning to the concept of code, R. Barthes clarifies the classification he proposed and distinguishes five main codes that help deconstruct the artistic text, in particular, hermeneutic (Voice of Truth), prophetic (Voice of Empiry or action), seminal (Voice of Person, or meaning), referential (Voice of the Sign, or cultural), symbolic (Voice of the Symbol). These five codes form a kind of network through which any text is passed. At the same time, the importance of the communicative qualities of the code is emphasized [3].

U. Eco refers to the concept of code within the framework of semiological knowledge, in which all cultural phenomena are

studied under the "sign of communication, for which the most suitable toolkit is selected for each sector, capable of revealing the communicative nature of the studied phenomenon" [4, p. 386]. Therefore, the identification of the "repertoire of symbols, which, while not falling under the category of semiotics, should nevertheless be attributed to one or another basic semiotics according to the way they function" [4] becomes the main task of semiology.

According to U. Eco, the code establishes a certain correspondence between what it means and what is signified. The code is complicated due to an element of redundancy, which represents the possibility of duplicating messages and thereby not only provides greater reliability, but also allows the transmission of additional messages. The code represents a repertoire of symbols, and some of them will be associated with certain phenomena, while others will remain inactive, insignificant, but at any moment ready to indicate any messages that seem worthy of transmission.

The code organizes, limits, introduces a system of probabilities, as a result of which an inversely proportional process takes place: "the information capabilities of the source are reduced, and the possibility of the communicative process (transmission of messages) increases sharply. Information needs to be organized not because of its volume, but because otherwise its transfer is impossible. The ordering function of the code allows for communication, because the code is a system of probabilities that is superimposed on the equal probability of the original system, thereby ensuring the possibility of communication" [4, p. 338]. Thus, "the code is a system that establishes the repertoire of symbols opposed to each other, the rules of their combination, the "occasionally unambiguous" correspondence of each symbol to some one signifier" [4].

O. Harmel introduces the concept of code into the musicological discourse. In her dissertation study, the author singles out a new aspect of the composer's interpretation, which she formulates as follows: "alien" text as the genetic code of the work. The researcher reveals this position in the aspect of neo-mythological intentions of artistic thinking. She notes that the texts of works of art often act as myths. And the essence of neomythologism, in her opinion, is that myths and art texts play the role of codes, with the help of which reality is understood [5, p. 10]. O. Harmel proves that "a well-known piece in musical culture is combined with a new one, or rather, becomes an integral part of the semantics and structure of a new composition. It is the prism through which the author offers to look at own original work and "read" it as a composition with a "double bottom", with an additional text level that emphasizes the concept" [5, p. 13].

The researcher claims that the interpreted text is a kind of genesis of the idea and an important "key" to understanding the work, and suggests that this type of relation of alien text to the author's text be defined as a genetic code (or genocode). At the same time, the author emphasizes that she interprets the code as close as possible to the interpretation of its word and understands it as "a system of symbols for the transmission of information and as a key to the method of encryption and reading the text" [5, p. 14]. The need to introduce the concept of code is connected with the fact that the text of the borrowed musical work is included in the new composition in the form of a cipher, in an "encoded version".

Thus, in order to get as close as possible to understanding the author of an artistic work, it is necessary to reconstruct, firstly, the system of significant codes of the culture to which the author belongs, and secondly, the system of individual codes of the artist. In this case, the code can be understood both as a system of symbols for the transmission of information, and as a key to the method of encrypting and reading the text. Consideration of the ways of the author's "coding" of the text, the reasons and goals of this coding allows defining the text code as a key to the concept, therefore, to the understanding of the text [6]. The need to introduce this concept in musicology is due to the fact that a musical text in modern compositional poetics can be a

combination of quotations, allusions, and stylizations. The compositional meaning of the elements of such a text can be revealed only on the basis of the author's code.

**Literature:**

1. Aranovskyi, M. (1998). *Musical text: Structure and properties*. Composer.
2. Asafyev, B. (1971). *Musical form as a process: in 2 books. Book. II. Intonation*. Music.
3. Barthes, R. (2001). S/Z.: Editorial URSS.
4. Eko, U. (2004). *Absent structure. Introduction to semiology*. "Symposium".
5. Harmel, O. (2005). The phenomenon of "alien" text in modern music. The aspect of neo-mythological intentions of artistic thinking. [PhD dissertation brief]. Kyiv: National Music Academy of Ukraine named after P.I. Tchaikovsky.
6. Hrybivenko, Yu. (2023). *Theoretical and categorical foundations of musical textology as a relevant musicological discipline*. Odesa: Oldi+.
7. Kholopova, V. (1990). *Music as a form of art*. Scientific and creative center "Conservatory".
8. Kudryashov, A. (2006). *Theory of musical content. Artistic ideas of European music of the 17<sup>th</sup>-20<sup>th</sup> centuries*. Lan.
9. Medushevsky, V. (1993). *Intonational form of music*. Composer.
10. Medushevsky, V. (1976). *On regularities and means of artistic influence of music*. Music.
11. Pyaskovskiy, I. (1979). Connections of A. Shtogarenko's modal-harmonic thinking with folklore. In: T. Kravtsov, ed. *Creativity of A. Shtogarenko* (pp. 57-77). Kyiv: Musical Ukraine.
12. Samoilenko, A. (2002). *Musicology and methodology of humanitarian knowledge. The problem of dialogue*. Odessa: Astroprint.
13. Ship, S. (2001). *Musical speech and language of music: Theoretical research*. Odessa State Academy of Music named after A.V. Nezhdanova, 2001
14. Viner, N. (1968). *Cybernetics, or control and communication in an animal and a machine*. Soviet Radio.

**Primary Paper Section: A**

**Secondary Paper Section: AL**

## METHODOLOGICAL PRINCIPLES FOR ENSURING THE ASSESSMENT OF EDUCATIONAL ACHIEVEMENTS IN HIGHER EDUCATION UNDER THE CONDITIONS OF DISTANCE EDUCATION

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**Abstract:** The article examines the opportunities for organizing the educational process, specifically focusing on the control and assessment of educational achievements of higher education students in distance learning conditions. The relationship between assessment in traditional and distance learning conditions is discussed. The quality and effectiveness of modern distance education are analyzed. Scientific approaches and perspectives regarding the main criteria for evaluating the quality and effectiveness of training in remote settings are revealed. The role of digital technologies in organizing effective training is highlighted. As part of the research, a survey was conducted at the initial stage of the experiment. The survey aimed to determine the frequency, methods, and forms of current and final assessment of student learning outcomes in distance education; identify preferred means and tools for evaluating distance learning results used by teachers; elucidate the peculiarities and main difficulties in organizing the evaluation of future specialists' training results under martial law; and identify changes in assessment procedures and approaches to selecting evaluation methods. An analysis of the main difficulties complicating the implementation of assessment procedures in wartime conditions was carried out. The directions and prospects for improving the mechanisms for evaluating the results of distance learning for future specialists are outlined. The development of digital literacy among teachers and future specialists is justified, as well as the need to create didactic support for online learning integrated into a single educational and methodological complex.

**Keywords:** distance education; interaction; effectiveness of training; educational process; quality of educational services; information technologies; students; innovations; means and tools for evaluation of training results.

### 1 Introduction

In modern conditions, the accelerated development of digital technologies in the 21st century has significantly influenced the modernization of Ukraine's educational system. This transformation is reflected in the Concept of the Development of Distance Education, which encompasses broad sections of society and has become a crucial factor in its progress. The active implementation of digitization and the expansion of distance education have permeated all spheres of human life. Given the need for prolonged and systematic suspension of in-person education due to quarantine restrictions from the COVID-19 pandemic and the full-scale armed aggression of the Russian Federation against Ukraine, distance learning plays a major role in accessing educational services [15].

It is believed that the first attempt to create a form of distance education was made by John Comenius 350 years ago when he introduced illustrated textbooks into widespread educational practice. He also laid the foundation for using a systems approach in education by writing his *Great Didactics*. Many researchers recognize him as the founder of distance education. At the end of the 19th century, "correspondence" training emerged as the forefather of distance education. Students could send their written work to the teacher, receive feedback, and obtain new materials by mail. These changes were facilitated by the advent of regular postal communication. This method of education was especially favored by those living far from big cities, for whom it was often the only opportunity to receive a serious education.

Today, a wide range of digital tools and educational resources are employed to organize distance learning. Their selection depends on the level of digital competence among the participants in the educational process, the functionality of their gadgets, access to high-speed Internet, and other factors. However, the use of specific electronic means affects the effectiveness of distance learning, the organization of result evaluation, and the ability to make timely adjustments in the educational process [8].

Therefore, the issue of organizing distance learning in higher education institutions, using digital tools for its implementation, and their impact on evaluating learning outcomes is gaining relevance. Despite numerous works on the quality of distance learning implementation in Ukrainian higher education institutions, there are no experimental studies on the practice of using tools to evaluate student performance in distance learning conditions.

The purpose of this study is to experimentally examine the methodological principles for organizing the assessment of educational achievements of higher education students under quarantine restrictions and martial law.

The tasks to be addressed during the research are as follows:

1. To analyze the current state of distance education organization methods in Ukrainian higher education institutions in the context of digitalization.
2. To develop a methodology for improving distance education under digitalization conditions.
3. To test methods for increasing the effectiveness of distance education in a digitalized environment.

Addressing these tasks during the research will allow for more effective organization of the educational process in Ukrainian higher education institutions in a distance format, considering the labor market requirements for specialists in the field of pedagogy.

### 2 Method

In the process of experimental research, the following methods were used: analysis, synthesis, comparison, systematization, and classification. These methods facilitated a theoretical analysis of problems related to the use of modern digital technologies in distance education. The study also involved a review of philosophical, psychological, pedagogical, and methodological literature based on state standards of higher education, educational programs for training future specialists in pedagogy, working curricula, and educational and methodological complexes of professional disciplines for various specialties. Additionally, the research summarized the experience of using digital technologies in higher education institutions and involved conducting an experiment, including ascertaining, formative, and control stages, to test the proposed methodological system aimed at enhancing digital competence in distance education.

The experimental study was conducted at Oleksandr Dovzhenko Hlukhiv National Pedagogical University during the 2022-2023 academic years. The sample size was 86 future teachers, with 42 respondents in the control group and 44 participants in the experimental group, comprising 46 women and 40 men. The results of the experimental studies were evaluated at high, medium, and low levels.

At the ascertainment stage of the experiment, a contingent of respondents in similar conditions (study course, educational program, etc.) was determined. A questionnaire was conducted to diagnose future teachers' awareness and use of digital technologies. This stage also involved analyzing literature on the research problem, selecting methodological tools to support the

use of digital technologies in the educational process, and studying best practices in digital technology methodology.

A comparative analysis of the scientific base on the research problem was conducted, along with systematization, classification, and generalization of theoretical data. The method for developing digital competence in future specialists within the context of distance education in higher education institutions was developed.

At the formative stage of the experiment, specialized methods for forming digital competence components were implemented in the experimental group under distance education conditions in higher education institutions at all stages of the experiment.

Based on the analysis of experimental data, it was concluded that the levels of digital competence formation among future specialists in distance education increased during the formative stage of the experiment. This finding supports the effectiveness of the outlined methodology.

At the control stage, the results were analyzed, and the qualitative and quantitative indicators of the pedagogical experiment were calculated using the Wilcoxon-Mann-Whitney criterion. The data were generalized, conclusions were drawn, and prospects for further research were outlined.

### 3 Results and Discussion

#### *Theoretical foundations of research*

The history of distance education has Soviet roots. During interactions between the countries of the former anti-Hitler coalition, British scientists became interested in the Soviet experience of organizing correspondence education. Consequently, Britain decided to establish a similar education system, allocating significant funds for the project. Curricula, programs, teaching-methodological manuals, and educational technologies were developed.

Prime Minister Harold Wilson took personal control of the project for the world's first distance education university, the Open University. The university was founded by the Queen herself, and the Speaker of the House of Commons was appointed Chancellor (Rector). Every effort was made to ensure the university was both massive and prestigious.

On this basis, the Open University of Great Britain began to function and remains one of the world leaders in distance education. Annually, 200,000 people study there. The Open University was named to reflect its accessibility due to its low cost and the minimal need for classroom attendance.

Initially, adopting Soviet ideas, the British restricted the system to UK citizens only. However, after a few years without protests or lawsuits from the Soviet Union, the British began accepting distance education applications from foreigners as well.

Prime Minister Harold Wilson originally envisioned the institution as an "air university," with television and radio delivering teachers to students' homes. Later, the idea to use regular mail emerged. By the late 1990s, it became possible to deliver educational materials more cheaply and efficiently via e-mail.

Correspondence education evolved from attempts to improve the quality of distance education, combining elements of correspondence and face-to-face learning.

The French National Center for Distance Learning (CEND) was founded in 1969. Its scope includes 2,500 training courses, 350,000 users, branches in 120 countries, and 5,000 teachers developing courses and educational activities. CEND utilizes satellite television, video and audio cassettes, e-mail, the Internet, and traditional literary sources.

Other established centers of distance education in Europe include Spain's National University of Distance Education (UNED), with 58 study centers in the country and 9 abroad, and the Baltic University (BU) headquartered in Stockholm, which unites 10 countries in the Baltic region.

In 1989, the public television broadcasting system (PBS TV) was created in the USA, a consortium of 1,500 colleges and television companies. PBS TV broadcasts several educational programs on four educational channels, with a special focus on the adult learning program (PBS Adult Learning Service), offering courses in various fields of science, business, and management.

Today, Penn State University is recognized as one of the most authoritative institutions in distance education. Its experience was utilized by UNESCO in creating the concept of a virtual university.

Distance education business programs account for 25% of all distance education programs in America. Companies such as General Motors, JC Penny, Ford, Wal-Mart, and Federal Express conduct staff training through private corporate educational networks. IBM uses an internal satellite educational network for these purposes.

Distance learning is a priority in the modern educational policy of Ukraine. The use of digital distance learning technologies should adhere to high standards of quality and efficiency, enabling the organization of a high-quality educational process [5].

In pedagogical practice, the concepts of "distance education" and "distance learning" are distinct. In the scientific and pedagogical context, distance learning is understood as an independent pedagogical technology based on controlled and didactically supported independent work using modern digital tools. Distance education, however, refers to the process of educational interaction between the teacher and students, which occurs remotely using digital technologies. The primary goal is the formation of professional knowledge and competencies in professional disciplines [7].

From the retrospective analysis of the emergence of distance learning, it is known that such learning originated and spread in Western countries as early as the early 1970s. The active development of digitalization at the turn of the 20th and 21st centuries led to the widespread use of online technologies.

Today, higher education institutions in Ukraine actively use online platforms for training specialists in the pedagogical field, including Moodle, Google Classroom, Microsoft Teams, Google Meet, and Skype.

These platforms create an information space that allows participants in the educational process to work in a coordinated manner, remotely access educational and methodological materials, and assess the competencies acquired by students. In training future teachers, online platforms facilitate various forms of education, such as consultations, individual classes, independent work, project work, video conferences, online classes, and audio recordings [11].

Evaluating the educational achievements of future teachers in distance learning conditions is crucial. As the organization of the educational process evolves, there is a need to update learning technologies accordingly.

After the outbreak of the COVID-19 pandemic and the full-scale invasion of Russian Federation troops into Ukraine, the usual work schedule of educational institutions at all levels—preschool, primary, general secondary, pre-university, and higher education—was disrupted. Teachers and lecturers faced the challenge of organizing the educational process under new conditions. The importance of finding new technologies and forms to ensure the effectiveness of the educational process has become paramount [4].



The key to successful distance learning lies in the cooperation between teachers and students and among students themselves. Ensuring dialogic communication between these groups fosters the assimilation of material through constant interaction, mutual consultations, and joint discussions of scientific issues.

Based on the analysis of psychological and pedagogical literature, the following technologies were identified for the high-quality implementation of distance learning: "Idea Mixer," GROW, blockchain, longread, geocaching, educational web-quest, and sample technologies.

The existing system of monitoring students' educational achievements, implemented under the credit-modular learning technology, forms the basis for evaluation in distance learning. However, it requires adjustments. We propose maintaining the general control scheme for distance learning—introductory, intermediate, and final control—while making necessary additions at each stage [10].

Special importance should be given to continuous assessment, which should incorporate methods such as peer evaluation, writing letters to prominent scientists explaining their theories, composing creative works on discipline-related problems, and developing plans for further research on specific issues. Each task is assigned a certain number of points based on its complexity.

Particular attention should be paid to the peer assessment method, where students are divided into pairs to complete tasks, exchange their work for review, and then assess each other's work. The teacher checks both the answers and the quality of the peer review, assigning two marks (one for the answer and one for the accuracy of the review). This method fosters a more diligent approach to classes and systematic preparation.

Formative assessment is a popular method of evaluating educational achievements, used both abroad and in Ukraine [1]. The formative assessment method for evaluating the readiness of future teachers for professional activity considers it as a structured system where all components are interconnected. This evaluation system targets professional competence, pedagogical skills, the ability to perform professional tasks, the degree of mastery of effective pedagogical skills, personal abilities, and the presence of essential personal and professional qualities relevant to achieving pedagogical goals. This form of assessment is recommended for blended learning environments, incorporating both traditional and digital technologies. When conducting formative assessment, it is recommended to clearly define the educational tasks of learning, introduce digital tools, online applications, cloud services, and utilize various online platforms and digital technologies to adapt students to new learning conditions [16].

The tasks of formative assessment include establishing the relationship between the goals, tasks, methodological approaches, didactic principles, components, criteria, forms, methods, and means of the educational process, as well as various types of technologies. Formative assessment provides information about the effectiveness of the educational process under the influence of external and internal factors. While the totality of introductory, intermediate, and final control characterizes the educational achievements of future specialists, formative assessment provides a measure of the effectiveness of the educational system in training future teachers. Research by scientists has identified both positive and negative aspects of such assessment.

According to C. Pirrone, D. Di Corrado, A. Privitera, S. Castellano, and S. Varrasi [14], "formative assessment has a positive effect on the motivation and academic success of students and is characterized as a constant and integral process, whose main task is to determine current successes, achieve expected educational goals, and minimize the gap between the actual and the desired outcomes."

K. Bozgun, A. Ozaskin-Arslan, and Ş. Uluçınar-Sağır [3] view formative assessment as a tool for evaluating both the personal and general achievements of future teachers, the degree of improvement in professional competences, and readiness for professional activity. Since formative assessment concerns all components of professional training and is an integrated assessment, it encourages students to develop reflexive independence, cooperation, and constant monitoring of individual achievements, which allows for the adjustment of training results based on individual needs.

Research has shown that the information system for evaluating students' achievements during the study of module topics is highly beneficial. Points awarded to students in classes are freely accessible, allowing students to regulate their learning pace. This depends on the assessment that satisfies them. This transparency ensures that students are aware of the results expected by each member of the group, guaranteeing fairness in the final scoring stage and eliminating the possibility of favoritism.

Under the conditions of credit-module technology, formative assessment allows for the consideration of the professional qualities of future teachers, stimulates the development of creative abilities, regulates the practical preparation of students for future professional activities, and determines the effectiveness of pedagogical technologies [9].

The implementation of formative assessment will contribute to:

- the acquisition of fundamental professional knowledge by future teachers;
- the development of a sustainable desire for creative activity and the construction of an individual scientific trajectory;
- the expansion of the practical focus of training and the determination of one's own capabilities as a future teacher;
- the formation of skills to master innovative means and methods of professional development for evaluating achievements at each stage of education [12; 6].

In addition to the above, online learning offers opportunities to: take online tests to assess knowledge, use online simulators for grammar and vocabulary learning, use photo, video, and audio materials from YouTube for better understanding of the material, watch demonstrations conducted by the teacher, communicate with the group in real time, complete test tasks with instant results, work online with textbooks in PDF format, connect to sites related to the lesson, and receive feedback usually in the form of audio messages and mini-projects.

#### *Empirical component study*

An experiment was conducted to assess the readiness of higher education students to evaluate educational achievements in the context of distance education. The sample comprised 62 students from Oleksandr Dovzhenko Hlukhiv National Pedagogical University. The control group included 30 respondents, while the experimental group consisted of 32 participants. Groups were formed through pairwise selection. The experiment took place during the 2022-2023 academic year.

The research involved an analysis of the existing system for evaluating educational achievements of higher education students and explored potential improvements. A questionnaire was administered focusing on five key aspects: systematic control, transparency of evaluation, primary types of control, evaluation schedules by modules, and shortcomings of the evaluation system in distance learning.

The results revealed that an important issue is the use of online tests as an objective tool for assessing learning outcomes. To ensure the reliability of test performance without external assistance, it is recommended to utilize a web camera. This setup allows teachers to promptly receive student responses, offer necessary clarifications, and provide explanations and didactic materials for challenging questions. Furthermore, various evaluation methods and forms should be employed during distance learning (e.g., tests, oral surveys during online lessons, peer evaluations, group work assessments). Continuous monitoring of academic progress is essential.

Thus, the role of the teacher in distance learning should extend beyond mere oversight of academic integrity. Teachers should organize evaluations to motivate students to enhance their educational achievements and engage in self-directed learning. Contemporary educational research indicates that evaluation should be ongoing, providing feedback to both students and teachers about achievements and challenges, thereby facilitating improved student success.

Based on this, the research focused on: (1) identifying the forms and frequency of current and final evaluations of learning outcomes for higher education students under distance education conditions; (2) clarifying teachers' preferences regarding assessment tools and instruments; (3) identifying the main challenges in organizing the evaluation of higher education students' results under martial law in Ukraine and how these procedures differ from those in quarantine conditions; and (4) analyzing the dynamics of educational achievements and the objectivity of assessments.

To assess the evaluation of educational achievements among higher education applicants, a survey was conducted. The results revealed that approximately 89.4% of respondents reported conducting thematic assessments, while 10.6% of respondents did not perform any assessments. The survey results are illustrated in Figure 1.

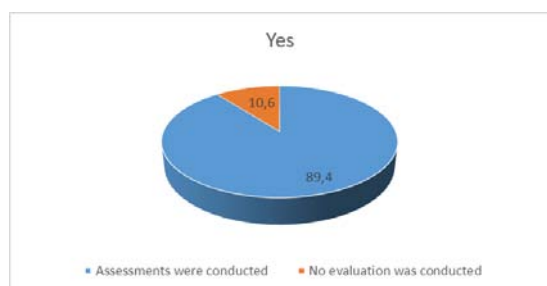


Figure 1. Availability of assessment in distance learning conditions

The frequency of current assessments of learning outcomes for higher education students under distance education conditions was categorized into the following indicators: at each lesson, once a week, two or more times a week, monthly, or occasionally not at all. The periodicity of these assessments is illustrated in Figure 2.

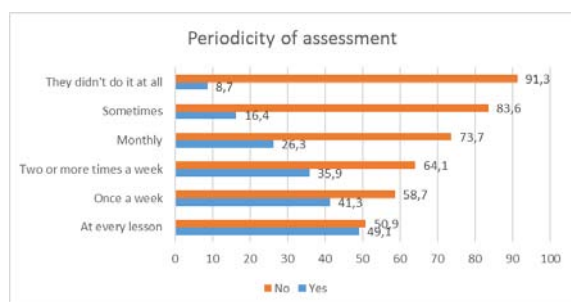


Figure 2. Periodicity of assessment of learning results of higher education applicants in the conditions of distance education

The distribution of responses among participants was as follows: 49.1% of higher education students reported that they conducted current assessments during each lesson, 41.3% did so once a week, 35.9% assessed students two or more times a week, 26.3% did so monthly, and 16.4% sometimes conducted assessments. Additionally, 8.7% of higher education students indicated that no assessments were carried out at all. This data suggests that, during quarantine and martial law conditions, over 80% of educators implemented ongoing assessments systematically (either during or after each lesson). Conversely, approximately 3% of educators did not conduct current assessments, according to the responses of higher education students.

To determine the methods and tools used for current and final evaluations of professional competencies in distance education, a questionnaire was administered. The results of this questionnaire are presented in Figure 3.

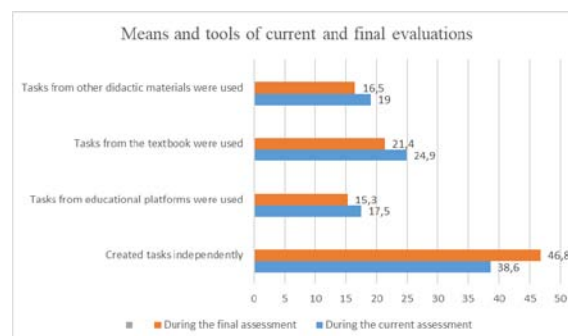


Figure 3. Means and tools of current and final evaluations

According to the survey results, a majority of teachers independently developed tasks for both current and final evaluations of higher education students' learning outcomes, both during quarantine and under martial law (38.6% and 46.8% of respondents, respectively). Teachers widely utilized tasks and tests available on online educational platforms for current and final evaluations, with 17.5% and 15.3% of respondents using these resources, respectively. For current evaluations, only 19.0% of teachers used tasks from textbooks, while 16.5% utilized tasks from other didactic materials. The results of the questionnaire are illustrated in Figure 4.

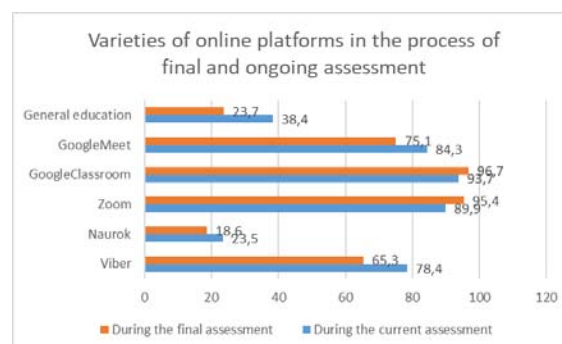


Figure 4. The most popular tools and evaluation tools

The next indicator assessed in the survey was the variety of online platforms used for conducting current and final assessments. The most favored platforms were Google Classroom (93.7% and 96.7%, respectively), ZOOM (89.9% and 95.4%), Google Meet (84.3% and 75.1%), Viber (78.4% and 65.3%), Vseosvita (38.4% and 23.7%), and "To the Lesson (Naurok)" (23.5% and 18.6%, respectively).

These tools were extensively utilized by teachers not only for current and final assessments but also for the overall organization of distance learning. Initially, during the quarantine period in 2020, teachers primarily used Viber, Skype, the educational institution's website, e-mail, and YouTube. In 2021–2022, the usage shifted to Viber, ZOOM, "Naurok" (To the Lesson), and Vseosvita. While social networks and services were predominant in 2020, the years 2021–2023 saw a significant increase in the use of online educational platforms that provide didactic materials and are frequently updated. For instance, platforms such as Learning Apps (Learning.ua) offer functionalities for posting author tasks for current and final assessments.

Services such as All-Ukrainian School Online, My Class, ClassDojo, Classtime, Learning Apps (Learning.ua), Telegram, Facebook, Microsoft Teams, Moodle, Khan Academy, Padlet.com, GIOS, Liveworksheet, Human, and Wordwall were

found to be less popular among teachers for current and final evaluations.

The analysis of the survey results indicates that Viber, "Naurok" (Naurok), Google Classroom, Google Meet, Vseosvita, and ZOOM are the most frequently used tools for organizing and conducting current and final evaluations. The prominence of Google Meet and ZOOM underscores the increasing importance of synchronous learning sessions.

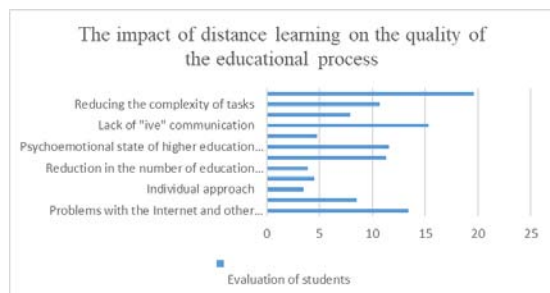


Figure 5. Impact of distance learning on the quality of the educational process

Based on the survey analysis, it was determined that under distance education conditions, the level of educational achievement among students has significantly decreased. This decline in achievement is attributed to reduced motivation, which is linked to the psycho-emotional state of higher education students, a lack of face-to-face communication, and heightened anxiety due to the current circumstances. Teachers face several challenges in organizing evaluations for distance learning, including inadequate high-speed internet, biased evaluations, and a reduction in student numbers.

The research revealed that at the onset of the COVID-19 pandemic (spring-autumn 2020) and the full-scale armed aggression by the Russian Federation against Ukraine, distance learning primarily relied on asynchronous interactions between students and teachers. Over time, synchronous learning gained popularity, even under martial law, as evidenced by the use of platforms such as ZOOM and Google Meet [13].

However, the quality of synchronous instruction is significantly impacted by wartime conditions. The deteriorating security situation can lead to disruptions or postponements of classes, complicating task completion and evaluation of learning outcomes. Security factors, such as night air raids, adversely affect the psycho-emotional state of higher education students, diminishing their motivation and academic performance. Some students are only able to complete mandatory tasks (primarily tests) without participating in online classes.

Access to synchronous education is not available to all higher education students. This is particularly true for those residing in occupied territories, combat zones, or de-occupied areas with damaged infrastructure. Additionally, students forcibly relocated abroad face challenges such as time zone differences and increased workloads from local educational institutions.

Under these conditions, creating an effective assessment framework for synchronous learning becomes highly challenging. Teachers often adopt a more lenient approach, offering simpler tasks, extended deadlines, and opportunities for resubmission, which can compromise the objectivity of the assessment.

The study identified that a priority for the development of the distance learning system for higher education students is the enhancement of assessment tools and the development of didactic support to improve objectivity.

#### 4 Conclusion

The results of the experimental study indicate that the experience gained by Ukrainian teachers during the organization of distance learning amidst the quarantine and the full-scale armed aggression by the Russian Federation against Ukraine has provided a foundation for the successful implementation of student evaluation during martial law. This process is recognized as a crucial and integral aspect of the educational framework. A key factor contributing to success is the high level of motivation among teachers to engage effectively with higher education students, despite challenging external circumstances and the emotional and psychological state of the educational participants.

However, the research identified certain obstacles to the full execution of evaluation functions in distance learning under martial law. These include difficulties with internet access, such as unstable connections or the complete absence of internet service, as well as insufficient technical resources, as not all students and teachers have access to computers, tablets, or smartphones necessary for online learning. Additionally, the low level of digital literacy among some teachers and students further complicates the use of digital tools.

Addressing these issues involves several urgent tasks: development of digital literacy: both teachers and students need training to effectively use digital technologies for organizing the educational process; improvement of assessment task systems: tasks should emphasize the application, analysis, synthesis, and creation of new knowledge rather than mere reproduction of information; professional development of teachers: training programs should include modules on developing and utilizing test tasks and methods for assessing learning outcomes [2].

The research also found that, under martial law and forced displacement, access to didactic materials becomes limited. Not all students have access to paper textbooks, which might have been left behind in abandoned homes. Conversely, during power and internet outages, paper textbooks can serve as a critical source of knowledge.

Both international and domestic practices suggest that a blended approach to assessment (combining synchronous and asynchronous methods), along with the extensive use of self-assessment and peer assessment, is optimal. These methods require continued support and attention from educators.

The study revealed distinct changes in the implementation of educational assessment compared to previous periods. Despite challenging conditions, there is a noticeable trend towards an increased emphasis on synchronous assessment, reflecting teachers' recognition of their role in providing feedback and enhancing educational engagement.

The sociocultural and humanistic orientation of the distance learning system aligns with prevailing trends in global education. The global emphasis on the humanization of education, and distance learning systems in particular, indicates a steady increase in the prestige and demand for distance learning in the coming years. Educational institutions must address this trend by considering the evolving demands of educational service consumers concerning technology, quality, and the flexibility of the education provided.

Simultaneously, many educators have observed a decline in the educational achievements of higher education students during martial law. There are also concerns regarding inflated assessments. Future research should focus on clarifying objective indicators of the educational process, such as the duration of synchronous and asynchronous modes, the number of connections, and the timeliness of task submissions. Additionally, it is important to assess the real level of educational achievements while accounting for educational losses. This approach will aid in identifying effective mechanisms for compensating these losses.

**Literature:**

1. Aykan, A., & Yildirim, B. (2022). The integration of a lesson study model into distance STEM education during the COVID-19 pandemic: Teachers' views and practice. *Technology, Knowledge and Learning*, 27(2), 609–637. <https://doi.org/10.1007/s10758-021-09564-9>
2. Bikov, V. Yu., Galperina, V. O., Ivaniuk, I. V., Ovcharuk, O. V., & Pinchuk, O. P. (2022). The current state of the use of digital technologies for the organization of distance learning in the buildings of the middle of the world: The results of the 2022 survey. *Information Technologies and Learning Methods*, 90(4), 1-18. <https://doi.org/10.33407/itlt.v90i4.5036>
3. Bozgun, K., Ozaskin-Arslan, A., & Uluçınar-Sağır, Ş. (2022). COVID-19 and distance education: Evaluation in the context of twenty-first century skills. *The Asia-Pacific Education Researcher*, 3, 1-12. <https://doi.org/10.1007/s40299-022-00663-4>
4. Champeaux, H., Mangiavacchi, L., Marchetta, F., & Piccoli, L. (2022). Child development and distance learning in the age of COVID-19. *Review of Economics of the Household*, 20(3), 659-685. <https://doi.org/10.1007/s11150-022-09606-w>
5. Kovalchuk, V., Marynchenko, I. (2019). Implementation of digital technologies in training the vocational education pedagogues as a modern strategy for modernization of professional education. *Annales Universitatis Paedagogicae Cracoviensis. Studia ad Didacticam Biologiae Pertinentia*, 1(9), 122–138. <https://cutt.ly/oUB4SHMM>
6. Kovalchuk, V., Marynchenko, I., Prylepa, I., Chubrei, O., Opanasenko, V., & Marynchenko, Ye. (2022). Development of emotional intelligence of future teachers of professional training. *International Journal of Early Childhood Special Education*, 14(1), 39–51. <https://doi.org/10.9756/INT-JECSE/V14I1.221006>
7. Kovalchuk, V., Marynchenko, I., Sherudylo, A., Vovk, B., Samus, T., & Soroka, V. (2021). Implementation of the learning model based on the results of future vocational teachers' professional training. *AD ALTA-Journal of Interdisciplinary Research*, 11(2), Special Issue XXI, 214–219. [http://www.magnanimitas.cz/ADALTA/110221/papers/A\\_38.pdf](http://www.magnanimitas.cz/ADALTA/110221/papers/A_38.pdf)
8. Marynchenko, I. V., & Tsiganok, N. M. (2022). Improving digital technologies in the training of future computer science teachers and professional educators. *Innovative Pedagogy*, 52, 125-130. [http://www.innovpedagogy.od.ua/archives/2022/52/part\\_1/9.pdf](http://www.innovpedagogy.od.ua/archives/2022/52/part_1/9.pdf)
9. Marynchenko, I., Bielikova, Yu., Braslavskaya, O., Chumak, N., & Levin, O. (2023). Modern tools for increasing the efficiency of distance education in the conditions of digitalization. *AD ALTA-Journal of Interdisciplinary Research*, 13(1), Special Issue XXXII, 87–92. <http://www.magnanimitas.cz/13-01-xxxii>
10. Marynchenko, I., Iliash, Yu., Malchyk, M., Papushyna, V., & Yakymchko, M. (2023). Use of digital technology tools for forming the readiness of future specialists in accordance with the requirements of the current labor market of Ukraine. *AD ALTA-Journal of Interdisciplinary Research*, 13(1), Special Issue XXXIV, 222–229. [https://www.magnanimitas.cz/ADALTA/130134/papers/J\\_32.pdf](https://www.magnanimitas.cz/ADALTA/130134/papers/J_32.pdf)
11. Martins, E., & Felix, N. (2017). Aluno aprendiz em educação a distância: material didático e avaliação. *Revista on line de Política e Gestão Educacional*, 21, 799-813. <https://doi.org/10.22633/rpge.v21.n.esp1.out.2017.9899>
12. Ögeyik, M. (2022). Using Bloom's digital taxonomy as a framework to evaluate webcast learning experience in the context of COVID-19 pandemic. *Education and Information Technologies*, 27(8), 11219-11235. <https://doi.org/10.1007/s10639-022-11064-x>
13. Ong, A. K. S., et al. (2022). Preference analysis on the online learning attributes among senior high school students during the COVID-19 pandemic: A conjoint analysis approach. *Evaluation and Program Planning*, 92, 10-21. <https://doi.org/10.1016/j.evalprogplan.2022.102100>
14. Pirrone, C., Di Corrado, D., Privitera, A., Castellano, S., & Varrasi, S. (2022). Students' mathematics anxiety at distance and in-person learning conditions during COVID-19 pandemic: Are there any differences? An exploratory study. *Education Sciences*, 12(6), 379. <https://doi.org/10.3390/educsci12060379>
15. Šimonová, I., Faltýnková, L., Kostolányová, K., & Klimszova, S. (2023). Re-thinking the online distance instruction based on students' feedback. *Journal of Computing in Higher Education*, 35(1), 6-39. <https://doi.org/10.1007/s12528-022-09332-3>
16. Zheng, Y., & Zheng, Sh. A. (2022). Comparison of students' learning behaviors and performance among pre, during and post COVID-19 pandemic. *SIGITE '22: Proceedings of the 23rd Annual Conference on Information Technology Education*, 5, 78-85. <https://doi.org/10.1145/3537674.3554753>

**Primary Paper Section: A****Secondary Paper Section: AM**

## MEDIA CONVERGENCE: STAGES, FORMS, DEVELOPMENT TRENDS - IMMERSIVE AND ARTIFICIAL INTELLIGENCE JOURNALISM

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**Abstract:** Based on our scientific-practical research presented in this article, we examine the process of convergence between the components of Azerbaijan's media communication system and mass media. We identify the levels, directions, effects, and new trends in the development of media convergence in Azerbaijan. The levels of media convergence - technical, industrial, social, and content - are analyzed. We also determine the factors shaping algorithmic journalism and drone journalism. Convergent journalism is explored not only as a technological process but also as a specific configuration with new forms and genres. Its analytical structure, including integrated production, multi-disciplinary professionalism, multi-platform delivery, and an active audience, is defined.

**Keywords:** media convergence; convergent journalism; artificial intelligence; virtual reality-VR and augmented reality-AR; immersive journalism; drone journalism; robot (algorithmic) journalism.

### 1 Introduction

Convergence is a defining feature of the modern information and communication society. The process of media convergence encompasses all areas of journalism, from the merging of media companies to the synthesis of media content presentation forms. Furthermore, the psychological profile of the audience is evolving from passive consumers to active participants who influence the information space through modern technical means. Convergence, which unifies different media platforms and configurations, enables the creation of new genres and makes multimedia broadcasting possible.

Media convergence involves the interaction of information and communication technologies, computer networks, and media content. It integrates the "three Cs" - computing, communication, and content - through technology. The most relevant example of media convergence is the smartphone, which combines various media such as print (e-books, news programs), broadcast (websites, radio, music programs), and new media (internet). A single device performs a multitude of functions, from calling and texting to photography, videography, gaming, and more.

Media convergence is transforming industries, services, and work practices, enabling entirely new forms of content. Broadly, convergence can be defined as the integration of different fields. Convergent journalism involves the production of digital multimedia content and its multi-channel distribution using network technologies under conditions of media convergence, resulting from the interaction of different types of media.

Digitization has facilitated the merging of mobile communications, the internet, and digital television, leading to the convergence of telecommunications and broadcasting. This trend is conceptually established, though terminology varies across studies. Consequently, convergence is described in various ways: multimedia, media convergence, convergent journalism, data journalism, algorithmic journalism, and drone journalism.

This article examines the paradigm shifts occurring with the convergence of IT, AR, VR, and EU technologies with journalism. It explores new forms of news configuration in the media communication system and defines the nature of immersive media. The application of artificial intelligence in modern journalism, including robot journalism, drone journalism, and algorithmic news, is analyzed, along with their legal and ethical implications. The possibilities, challenges, and limitations of drone journalism, including news production, distribution, and consumption practices, are explored. Additionally, the development potential of these journalism types in Azerbaijan is assessed, considering ethical and legal aspects and the use of drones.

The risks and problems associated with drone journalism are identified and analyzed from ethical and legal perspectives. The potential practical applications of artificial intelligence and the development prospects of immersive journalism are also investigated.

### 2 Method

The article is based on both academic and applied research. Within the context of communication and mass media theories, common logical methods such as synthesis, induction, deduction, generalization, comparative analysis, statistical analysis, content analysis, and other scientific research methods were employed.

Systematization and classification methods were used to study and analyze the theoretical-methodological and functional-typological aspects of convergent media. Observation, survey, and interview methods were applied in the study of Azerbaijani internet mass media and their audiences, the activities of convergent editorial offices, journalism based on artificial intelligence, and immersive journalism.

The analysis of scientific literature on journalism and artificial intelligence was carried out systematically. In addition to providing a general and quantitative overview of the topic, this method aimed to collect, evaluate, and synthesize the results of primary studies from an integrative perspective.

### 3 Results and Discussion

The study of the Azerbaijan media communication system from different aspects shows that the dynamic development and comprehensive application of ICT, as in all spheres of activity, causes radical changes in the media sphere. The structure, forms, methods, and directions of development of the Azerbaijani media are undergoing significant transformations. These transformation processes reflect the globalization, convergence, diversification, and demassification of the field. Transformation in the media sphere is observed at both macro and micro levels.

Convergence is a term used across various disciplines to describe and analyze processes of change towards uniformity or unity. The term "convergence" originates from the Latin word "converge", meaning "to approach". Translated from English, it means "gathering at one point", which is similar in meaning. The term is widespread in various natural and social sciences, including biology, linguistics, economics, political science, and telecommunications. Since the 1970s, the term has also been used in the field of media. In "The End of Ideology", Daniel Bell discussed new concepts and ideas related to the information society, proposing a new context for understanding convergence [10].

In the Green Paper of the European Commission, convergence is described as "delivering similar types of services through different network platforms or integrating consumer devices such as telephones, televisions, and personal computers" [18].

Media researchers have been interested in media convergence since the 1980s. However, significant publications, conferences, and discussions on media convergence surged after the release of Henry Jenkins' book "Convergence Culture". Since the 1990s, the rapid penetration of the Internet into the daily lives of millions has given the concept of convergence a broad practical meaning [14].

According to the opinion of American scientist and professor Ithiel de Sola Pool, which he expressed as early as 1987, convergence "means the removal of boundaries between mass media (press, radio, television) and communication media (telephone, post office, telegraph)" [20]. Canadian media and communication researcher Denis McQuail, referenced by

Russian researcher M. Pavlikov, stated that “convergence is the placement of the same content material by different means and channels” [20]. These theoretical approaches do not fully explain the concept of media convergence. Media convergence also entails the disappearance of boundaries between mass media, their merging on a single platform, and the distribution of diverse content on this platform. Media convergence occurs not only at the technical level but also at the service, content, genre, and semantic levels.

The above-mentioned theorist Henry Jenkins, author of “Convergence Culture: Where Old and New Media Collide”, describes convergence as “a never-ending and ever-evolving stream”. Jenkins elaborates on his argument with three concepts: convergence, participatory culture, and collective intelligence. He notes that in this process, education, media reforms, and democracy are influenced by this flow [12].

Remediation is another concept frequently encountered during research on the transformation, integration, and convergence processes of traditional media. In the book “Remediation: Understanding New Media” by David Bolter and Richard Grusin, the authors define remediation as “the reshaping or reformation of media” [3]. According to the researchers, this process of change has a broad and deep meaning, encompassing everything from technology to the individual. The philosophy behind the process includes not only a technical transition from the old to the new but also a content transition. Complete integration cannot occur if the content does not align with the form.

Structurally, convergence changes the techno-social communication system in relation to the media landscape. It combines the computer sector, media, and telecommunications. This process has undergone two main stages since the end of the 20th century. In the first stage, transmitted data and digital telephones were recorded on computers, and electronic communication technology (informatics) was invented as telematics. In a similar vein, “mediamatics” integrates these fields [13]. According to the scientific literature on media convergence, the second stage involves further integration of these technologies. We consider the application of artificial intelligence in journalism, the combination of journalism and AI algorithms on one platform, the use of drone technology in news production, and immersive journalism as the third and newest stage of media convergence.

As mentioned, all definitions of convergence share the fundamental concepts of coming together, integration, and the disappearance of boundaries. It is more accurate to examine this concept in two directions. The first direction is accumulation. Technical aggregation refers to the integration of services provided by different technologies. Corporate aggregation involves cross-sector mergers aimed at providing integrated services. According to the second theoretical direction, the traditional divisions within the media industry are disappearing due to the expansion of digital technologies. However, it is also important to note that new technologies support traditional media, and the multimediaization of traditional mass media does not completely eliminate or replace classical media. In other words, traditional media integrate digital technologies. Additionally, products and services that were previously distinct are combined into hybrid products thanks to new technologies. For example, web TV and interactive TV have emerged from the combination of television and the Internet. Convergence changes the relationships between existing technologies, industries, markets, genres, types, and users.

According to a number of researchers, “any form of convergence is not a full integration stage of the convergence process” [9]. We consider theorist Deusen’s definition acceptable: “Convergence should not be linear; otherwise, the process may not be realized” [8].

Thus, media convergence involves the disappearance and blurring of technical and regulatory boundaries between telecommunications, radio, TV broadcasting, and other

information sectors, as well as information technologies, artificial intelligence, and media. This phenomenon entails presenting the same content in different forms (text, audio, video) and through various communication channels (press, radio, television, internet, mobile devices). This process is a key direction in the transformation of traditional mass media. Convergence is an ongoing process that leads to the emergence of hybrid genres and the combination of genres in journalism. With the proliferation of new channels, prototyping computers, and telecommunication technologies, a media system emerges in which all types of mass media are interconnected at all times, everywhere. Convergence functions to simplify complexity by replacing devices with metaphorical equivalents. It applies to almost all aspects of digital media development. The direction and pace of convergence are determined by the interplay with technological innovations, corporate strategies, political-legal reforms, and changes in the mass media structure.

The law governing convergence is the law of digitization. Digitization is the conversion of information from its natural, analog state into a format readable by computers. The biggest advantage of digitization is that digital information can be easily transferred from one medium to another. Digitization, at the heart of these changes, contributes significantly to the convergence of technologies.

In the experience of foreign countries, the process of media convergence dates back to the 1980s. While traditional mass media continued to operate in the media market, the market itself began to develop towards diversification. In the 1990s, the rapid introduction of the Internet into the daily lives of millions of people led to the practical discussion of convergence. For this reason, “convergence is also a concept that characterizes the period of transition from the analog world to the digital world” [15]. Internet phenomena, digital foundations on technological platforms, and new media content with multimedia features are emerging. Consequently, not only organizational and structural convergence of media companies is observed, but also convergence of various forms of media products. During these years, the convergence of foreign media companies (printing, broadcasting, and online media) and a unified management structure are observed. The media convergence and integration process saw more than 100 newspaper companies worldwide, including *The Financial Times* (1999) and *The Guardian* (2000), developing in this direction. “At this stage, traditional mass media models are being improved” [16].

Understanding the parameters specific to all media types facilitates the convergence process. It enables the modeling of the interaction within the effective structure of the media. Issues such as lack of financial resources, absence of a multimedia editorial system, legal restrictions, and conflicts between information and entertainment culture can be cited as challenges of this era.

The development of the Internet and the creation of active Internet resources in the late 1990s laid the groundwork for integrating Azerbaijan’s traditional mass media into the virtual space. During those years, the websites of media companies were primarily considered business cards. With Azerbaijan’s transition to a market economy, the transformation of socially important areas, including mass media, began. Since the 2000s, the stage of integrating media within the mass media system of Azerbaijan has progressed based on mutual activity. The rapidly developing Internet, which is at the heart of these reforms, also significantly impacted the online media consumption market.

Since the 2000s, such websites have evolved into full-fledged information resources. A few years later, the modernization of the media market led to the emergence of convergent editorial offices in the Azerbaijani media business. In multimedia tapes, information is presented in different forms (text, photo, video, infographics), and events are reported not sequentially but in parallel. The integration of mass media into the global network led to the creation of the first models of convergent newsrooms.

Currently, media companies like APA Holding, ATV company, and SES information agency operating within the Azerbaijani media system produce and broadcast content across almost all types of mass media. The formation of such media businesses in Azerbaijan is a key factor in shaping the structure of the convergent type of mass media.

Convergence is driven by various types of innovation. The interaction between different levels has significant features. The capital-evolutionary approach assumes the interdependence of technical, economic, political, and socio-cultural convergence processes, resulting in a complementary understanding and diverse outcomes for political and corporate strategies. These concepts provoke heated debates about technological and social determinism in the scientific literature on media transformation and convergence.

A capital-evolutionary approach to the Internet serves as an exemplary model of communication and change within the digital creative economy. This perspective presents the Internet as a complex, adaptive system - a decentralized structure with nonlinear properties. The capital-evolutionary approach explains the interaction, or more precisely, the mutual pressures and behaviors of technologies, organizations, and business models that support each other. Evolutionary processes are also evident in the World Wide Web (WWW): from a simple web to a complex structure, a general behavioral complex, and an individually organized social system.

In addition to the scientific theoretical approaches and researchers' opinions, it is important to note that five key directions determine the development and sustainability of media convergence:

- **Technological Direction:** The adoption of digital technology increases production speed and fosters a creative approach to producing unique information products.
- **Economic Direction:** Reducing production costs enhances economic stability and increases competitiveness.
- **Spatial Direction:** The development of mass media in the national market contributes to the growth of the global information space.
- **Professional Direction:** This involves forming an original strategic concept and tactical development of the convergent newsroom, creating a professional team, and modernizing the existing forms and language principles of mass media.
- **Cultural Direction:** The aim is to create a high-quality multimedia product that meets the needs of the information society, upholds moral values and rules of intercultural communication, and promotes social consciousness and sustainable development.

Depending on conceptual frameworks, the explanation of convergence varies and is classified at different levels. Various directions, forms, and levels of media convergence have been studied to date. Based on the analysis of these trends and our scientific-practical research, we have identified new development trends by examining the process of media convergence within the media communication system and media components of Azerbaijan. We have studied convergent journalism not only as a technological process but also as a specific configuration with new forms and genres, and we have identified its analytical structure, including integrated production, multidisciplinary professionalism, multi-platform delivery, and active audience engagement.

One of the theorists of the information society, Manuel Castells, writes: "Convergent mass media", "media convergence", and "multimedia journalism" are used to describe ambiguous terms "due to the fact that the media revolution is happening before our

eyes, and that the press, radio, and television are coming together in different ways" [5].

Anders Fageryord and Tanya Storsul's research identifies six interpretations of media convergence: network, terminal, service, market, genre and form, and regulatory.

- **Network Convergence:** This refers to the conversion of analog signals to digital signals, enabling integration across modern digital cable TV networks that encompass both broadcast TV and computer databases.
- **Terminal Convergence:** This involves the integration of separate devices with different functions into a multifunctional device. Examples include computers, PDAs, laptops, and smartphones.
- **Service Convergence:** This pertains to the provision of similar services through diverse electronic means based on digital networks and terminals. Examples include mobile text messaging, chat, blogs, and accessing email via TV.
- **Market Convergence:** As a result of the convergence of terminals, networks, and services, telecommunications companies increasingly become active participants in the media market.
- **Genre and Form Convergence:** This occurs when previously distinct media genres are assimilated across various media platforms.
- **Regulatory Convergence:** This results from market convergence. As markets become unified, governments introduce common regulatory measures. For instance, in the past recent years, various institutions in Azerbaijan have merged. An example is the consolidation of "Aztelecom" and "Baku Telephone Communications" (BTRIB) into a single joint-stock company since 2014.

Russian theoretician Anna Kachaieva proposes an additional classification of convergence types: as a business strategy of media holdings; as tactical knowledge management; as a new form of information presentation; and as the sphere of information gathering and production [19].

According to two main features of convergence - synthetic and interactive - multimedia can be considered a new type of information product. The synthetic feature involves combining different types of information products, while the interactive feature allows for selection and customization among various options. As a result of strategic goals, convergence has progressed more intensively in telecommunications compared to media circles. The integration of broadband ISDN networks and fiber-optic technology, anticipated thirty years ago, demonstrates that communication convergence is already partially realized.

With the dissolution of boundaries between telecommunications and mass media, research into media convergence has emerged. Subsequent studies have focused on the intersections between individual and mass communication. In this process, the mode of communication becomes central, blurring the lines between traditional mass media, which are now considered sub-sectors of mass communication. Analytically, it is useful to conceptualize the erosion of boundaries between telecommunications and mass media as both the core and essence of media convergence.

These processes interact with both traditional and emerging domains - politics, education, marketing, advertising, public relations, and human resource management. Journalism, as a means of mass communication, is inevitably involved in these fields. However, journalism must remain distinct from publicity or politics. Indeed, when journalism becomes entangled with political praise, it compromises impartiality and objectivity. Consequently, convergence can be viewed as a characteristic of various communication practices within the information society.



From this perspective, a new paradigm in information communication is forming within the media. This paradigm is characterized by: the expansion of the media landscape to include non-journalistic information technologies such as PR, advertising, and managerial tools; the integration of communicative practices, particularly journalism and PR; and the alignment of information policies with independent market entities, including mass media companies and products from corporate industry, science, and educational institutions. In this context, journalists may find themselves engaged in PR, publicity, and marketing rather than traditional journalism. These challenges are addressed through collaboration between enterprises and media organizations. The convergence of media practices necessitates precise professional distinctions. For instance, a journalist involved in preparing PR materials should be distinct from a PR specialist who employs journalism for his objectives. Journalists should also consult other communication experts when needed to achieve the desired goals. This situation highlights the risk of losing professional identity; however, a journalist's professional integrity and ethical standards guide the practice in this sphere.

In the convergence of mass media, various combinations of components (press, radio, television, and the internet) result in diverse forms of hybrid media: newspaper-internet, radio-newspaper-internet, television-newspaper-internet, etc. The convergence of the modern Azerbaijani media system is characterized by communicative features such as interactivity, hypertext, multimedia, online presence, and multi-channel capabilities. These features facilitate continuous information updates. The internet underpins these convergence processes, serving as a catalyst for their development. The complex interplay of different media content can create a synergistic effect, necessitating specialists who understand the internal structure of new media components.

Numerous terms, classifications, and scientific literature suggest that media convergence occurs at technical, economic, political, and socio-cultural levels. Based on these theoretical approaches and our scientific-practical research, we can identify several levels of media convergence within the modern digital network and traditional mass media, including technological, industrial, social, content, and journalistic convergence.

- **Technological Convergence:** This involves the integration of computing, communication, and content within networked digital media platforms.
- **Industrial Convergence:** This refers to the involvement of established media institutions in the digital media space and the emergence of digital-based companies such as Google, Apple, and Microsoft as significant media content providers.
- **Social Convergence:** This encompasses the rise of social networking platforms like Facebook, Twitter, and YouTube, along with the proliferation of user-generated content.
- **Multimedia Content Convergence:** This involves the presentation of media content in multimedia formats, including hypertext, hyperlinks, images, audio, and video materials.
- **Content Convergence:** This indicates the expansion of media content in the digital environment, incorporating fields such as journalism, advertising, film, art, public relations, distance education, marketing, libraries, trade, and gaming.

Technological media convergence focuses on integration and interoperability, specifically the convergence of computing networks, information and communication technologies, and digital forms of adaptive information delivered through "smart" platforms, applications, and devices. Known also as digital convergence, it refers to the trend where previously unrelated

technologies become increasingly integrated. For instance, devices like watches, phones, televisions, and computers, once separate and largely unrelated, have converged into interconnected components within the telecommunications and media industries, sharing common elements of digital electronics and software.

This technological transformation has been paralleled by industrial convergence, marked by significant mergers and the rise of major new digital media companies. During the 1990s and early 2000s, major media companies undertook substantial mergers to diversify their interests across media platforms. Notable mergers include Viacom-Paramount (1994), Disney-ABC (1995), Viacom-CBS (2000), NBC-Universal (2004), and the America Online-Time Warner merger in 2000, which was the largest corporate merger at that time.

The industrial aspect of convergence is characterized by the interpenetration of various information sectors within the economy. This includes both the convergence of information and communication businesses - such as the integration of computer, telecommunications, and media companies into a single entity - and convergence within the media industry itself, for example, the production of diverse types of media content by a single organization.

The broad and multifaceted nature of convergence leads to both general and highly specific interpretations of the converged communications sector. This sector significantly overlaps with the digital creative economy, with common sub-sectors and subjects such as communications, broadcasting, publishing, advertising, music, film, and gaming experiencing growth due to convergence. Additionally, the impact of media convergence extends to other areas of the creative industries, including museums, libraries, and design.

Media convergence in the form of multimedia content involves presenting information or content in various formats simultaneously, such as audio, animated graphics, and video. For instance, a single container object may include text, audio, graphics, and video, and support interactive engagement. This is achieved through specific hardware and software systems. Technical convergence in media also encompasses the integration of information production and distribution technologies. As previously noted, "the essence of convergence is rooted in digitization. A product with the same content is broadcasted through both cable and mobile devices. Information is presented on television, computer, and phone screens without temporal or spatial limitations" [16].

In robot journalism, news is automatically generated and disseminated on social networks according to algorithms, with no human intervention. This form of journalism, which reduces costs and accelerates the news cycle, is rapidly gaining traction worldwide. Another form of technical convergence involving artificial intelligence is drone journalism. The development of small, remotely piloted drones equipped with cameras has made aerial photography more accessible. Drones are now employed for both personal and professional purposes, offering significant insights into the interplay between technology, economic and legal constraints, professional cultures, and audience preferences. Research in media convergence now includes the adaptation of drone technology in newsrooms, audience reactions to drone use, the relationship between journalists and government agencies, and the evolving perspectives on robotic journalism and algorithmic news.

Thus, technological convergence has led to the emergence of new digital media forms, such as: interactive television combined with digital satellite and cable networks, which provide users with continuous access to the digital world; digital terrestrial television broadcasting that merges digital technology with radio frequencies; internet radio and internet protocol television (IPTV) delivered over the internet; and mobile TV. These innovations represent significant advancements in digital mass media.

Technological convergence leads to industrial convergence through agreements, mergers, and acquisitions among the computer and information processing industry, telecommunications companies, and the media sector. For example, the privatization of the Turkish company Azercell (55%) in 2005, which owns telephone and internet infrastructure, exemplifies this trend. Back in 2000, the acquisition of a portion of the traditional media giant Time-Warner by the world's largest Internet service provider, AOL (America Online), marked a significant merger in the field. This merger combined AOL's telecommunications infrastructure with Time-Warner's cable networks, movie studios, and extensive archives of music, film, and television programs, representing the largest industrial merger in world history.

The mass communication and media business sector is among the most dynamic components of modern social systems. Integration processes at the institutional level, such as the convergence of media holdings, are particularly evident here. This convergent structure produces diverse forms of information, including verbal, illustrative, audio, and video materials. The principle of complementarity underpins the resulting multimedia products. For instance, ATV, which began as a commercial TV channel, now encompasses a wide range of media fields including TV, radio, print publications, and online media. Similarly, media companies such as Global Media Group and Baku Media Center exemplify the convergence within the Azerbaijani media industry [17].

Converged products and services, digitization possibilities, interactive communication, and the benefits of broadband network infrastructure constitute new forms of media content. The transition across service sectors, local or consumer sectors, entertainment, communication, and information sectors has resulted in another form of convergence. For example, international commercial product sharing through electronic data exchange and money transfer indicates content and service convergence. "In the 1990s, the entry of service sectors formed by small offices into electronic commerce and information exchange accelerated this trend. E-commerce websites and extensive email networking were early examples of service convergence. By the 2000s, the convergence of SMS (Short Message Service) capabilities in mobile communications and digital television services enabled the creation of limitless possibilities by integrating content, products, and services directly targeting viewers and consumers" [10]. Digital television not only provided high-quality sound and images but also allowed access to websites and text-based information through television.

Media convergence also brings about changes in social practice. Theorists argue that convergence, along with cultural convergence, "affects the formation of mass culture" [12]. Thus, mass media can be viewed as a milieu of technological and socio-cultural experiences. The impact of convergence includes the integration of consumers into media and telecommunications, as well as the generation of user content and collective intelligence. Consequently, media convergence represents not only a top-down movement but also a reciprocal process.

Based on our research within the Azerbaijani media system, we propose adding social-functional aspects of convergence to the existing body of global research. Social-functional convergence is characterized by the integration of enterprises, state structures, the private sector, advertising firms, business companies, and non-governmental organizations into the media-communication environment, particularly within the framework of electronic state programs and innovative communication initiatives. Additionally, telecommunications are increasingly used for entertainment rather than for information and communication purposes. Spatial convergence, on the other hand, links cross-border services and technologies, particularly within the context of globalization.

The primary distinction between convergent journalism and traditional journalism lies in the approach to content creation, the

structuring of editorial offices, the distribution of functions, and the utilization of internet-based tools. Several researchers argue that the concept of convergence in journalism "should be based on the understanding of the processes encountered by the media industry, such as lack of regulation, privatization, and monopolization" [14]. However, we contend that dramatic changes such as privatization, monopolization, and mergers are characteristic of any market economy sector; thus, their identification and investigation should be the focus of economic sciences rather than journalism alone.

The intensification of the convergence process is driven by identifying similar activities across different media types. This includes: the aggregation of information into a unified thematic base; accommodating the diversity of media languages; catering to the demand for multi-variant forms of information products; employing PR and marketing strategies to attract audience attention; and optimizing cost efficiency through targeted ad distribution methods, which contribute to the capitalization of media structures by encouraging convergent media companies.

Our research indicates that convergence in professional journalism manifests in several forms [15]:

- Convergence brings together various and somewhat disparate media and content forms. A journalist can present prepared material across different platforms, such as traditional newspapers, online sites, and TV programs like teletext. This results in a radical transformation of traditional information and communication channels.
- Convergence influences the language and style of mass media, blending different journalism genres and leveraging multimedia technologies to create new genres.
- Journalists must adapt to work with multimedia technologies and prepare content across various media formats.
- The application of artificial intelligence in journalism manifests through practices such as algorithmic journalism and drone journalism.

Immersive journalism is a form of journalistic production that enables users to experience events or situations depicted in news reports and documentaries from a first-person perspective. By utilizing 3D and immersive technologies, users can enter a virtual representation of the location where an event occurred or experience the viewpoint of a character featured in the news. This technology provides unprecedented access to sights, sounds, and even emotions [2]. Immersive news constructs allow users to engage with a virtually recreated scenario that represents the story. Video and audio from the physical world are incorporated to reinforce the notion that participants are engaging with a nonfiction narrative. For instance, video triggers at key points within the virtual environment remind participants that the computer-generated setting is based on real news. Scripted events that create first-person interactions with the report further enhance the sense of "being there". In automated journalism, also referred to as algorithmic journalism or robotic journalism, "news is produced automatically by computers using artificial intelligence (AI) software" [11].

The concept of "immersive journalism" as an independent form of journalistic activity has not yet been well defined in Azerbaijan. Currently, immersive journalism is in its formative stages within the country. Virtual reality in Azerbaijani journalism begins with the systematization of conceptual frameworks. Today, theorists are working on classifying immersive journalism within the modern media landscape both in Azerbaijan and internationally.

According to experts in artificial intelligence, as well as software providers, "media will increasingly offer personalized and immediate services based on specific requests, transitioning from their traditional role as intermediaries that select and categorize information on behalf of users to a new role as information

providers” [4]. Analysis of algorithmic journalism suggests that these changes mark the beginning of significant transformations in the coming years. The current developments represent some of the most radical changes in the history of journalism. As the application of artificial intelligence expands across various journalistic practices, the interaction between journalists and machines is likely to increase, necessitating organizational adjustments [1].

Our study of drone journalism, algorithmic news, and robotic journalism across different periods (2015-2016, 2017-2019, 2020-2024) indicates that AI-driven journalism offers a novel and expansive perspective. The convergence of artificial intelligence and journalism will facilitate the distribution of automated text news, audio, and video on demand, thereby altering business models through new communication methods. Additionally, non-linear, unstructured news consumption is expected to prevail, leading to changes in the professional profile of less active journalists who may enhance their cognitive contributions to news production.

General scientific and theoretical considerations in robotic journalism, based on practical analyses of algorithmic news, suggest that while artificial intelligence can assist and partially replace journalists, no automated software or amateur reporter can fully substitute for a skilled journalist. The use of drones in journalism also faces challenges, as it is not always suitable for surveillance purposes. Discussions in this domain include security concerns such as national security, airspace safety, privacy protection, and the rights and freedoms of individuals [7]. Given that each country has legal restrictions on drone use, obtaining permission for editorial purposes can be challenging. Although some view restrictions on commercial drone use as an infringement on press freedom, we argue that privacy and security concerns make such regulations necessary. Since there is no standardized access control for reporters using drones, press cards and similar programs for unmanned journalism are yet to be developed [6]. Another contentious issue is whether journalists can use drone footage for non-journalistic purposes and share it with third parties. We believe it is crucial for news organizations to establish guidelines for the use and exchange of drone footage. The legal regulation of drone use for journalistic purposes will likely evolve through ongoing negotiations between government authorities and media organizations.

Effective drone journalism necessitates ethical guidelines and legal norms to ensure a balance between safety and freedom. The increasing application of artificial intelligence in journalism across various countries highlights the relevance and importance of future research in this field.

#### 4 Conclusion

Based on our research within the Azerbaijani media environment, content distribution has significantly improved due to convergence. The integration of the Internet, mobile communications, and digital television systems has expanded the range of opportunities for users to access information. Convergence necessitates the development of a multi-platform distribution strategy. Telecommunications companies and software providers are actively promoting the creation of specialized services for content delivery as a means of identifying new revenue streams. In this demand-driven model, users gain more control over the content they access, receiving it at their preferred time and in their desired format. A key parameter for analyzing this dimension is multiplatform broadcast management. Digital technology enables fully automated, software-driven content acquisition through various media, with user intervention also playing a role.

Multiplatform distribution is the most apparent form of convergence. Currently, 85% of Internet mass media in Azerbaijan operate on a multiplatform basis. Often, without the involvement of journalists, the same information products are disseminated from leading news sites to other online and traditional mass media outlets. Agencies such as AzerTAC, APA, and Trend are prominent sources of information. The

characteristics of convergent journalism are particularly evident in the news provided by AzerTAC. “The site allows readers to utilize a multimedia service that integrates text, video, and audio news, and to share news on social networks such as Facebook, Twitter, Digg, and Google” [10].

Our research into media convergence in Azerbaijan, including convergent newsrooms, the professional culture across different media levels, business priorities for individual journalists, and the decisive factors influencing the formation and evolution of convergent projects, indicates that the quality of news production and content distribution is not consistently positive.

The convergence process observed in Azerbaijani online journalism not only blurs the boundaries between mass media but also diminishes the distance between the audience and content producers. This perspective is supported by the qualitative changes in audience habits and perceptions regarding interactions between journalists and citizens.

One of the most significant impacts of media convergence is the fragmentation of the collective audience into individual consumer segments. Consumers, accessing information through various broadcasts and channels on their mobile phones, receive news across a range of topics. Although convergent journalism is operational in Azerbaijan, it has not yet been extensively studied from a scientific and theoretical perspective, nor has it been integrated into the journalism education system.

By synthesizing various elements, we can define the analytical framework of convergent journalism as comprising integrated production, multidisciplinary professionalism, multi-platform delivery, and active audience engagement. This analytical approach allows for comparative analysis across different media companies and facilitates the study of the development and convergence processes within Azerbaijani online media. We anticipate that our model will also help identify stakeholders and groups resisting the convergence process.

An analysis of algorithmic journalism indicates that the changes observed are indicative of broader transformations likely to occur in the coming years. These developments represent some of the most radical shifts in the history of journalism. As artificial intelligence (AI) continues to be integrated into various journalistic practices, the interaction between journalists and machines is expected to increase, necessitating a reorganization of journalistic practices.

Our research into drone journalism, algorithmic news, and robotic journalism - spanning the years 2015-2016, 2017-2019, and 2020-2022 - demonstrates that AI-driven journalism represents a phenomenon with expansive and evolving potential. The convergence of AI and journalism will facilitate the extension of automated text news to include on-demand audio and video content, thereby driving changes in business models through new communication channels. Concurrently, there will be a shift towards non-linear, unstructured news consumption, leading to changes in the professional profile of journalists. Less active journalists may need to enhance their cognitive contributions to news production.

In our view, the future of media convergence should not be interpreted as a singular and uniform transformation of all mass media. It is expected that the process of media convergence will be accompanied by divergence and new differentiations within the convergent communication sector.

The advancement of information and communication technologies (ICT) underpins the convergence process, which integrates communication services and information products on a unified platform. Media convergence encompasses all aspects of journalism, from the integration of media companies to the synthesis of media content presentation forms. Additionally, the psychological profile of the audience is evolving from passive consumers to active participants who influence the information landscape using contemporary technologies. Convergence, which integrates various media platforms and configurations,

enables the creation of new genres and multimedia broadcasting. As a defining feature of the modern information and communication society, convergence is poised to impact not only ICT systems but also various related fields in the future.

#### Literature:

1. Angova, C. (2020). Automated journalism between man and technology. *Rhetoric and Communication*, 3(2), 39-42.
2. Biocca, F., & Levy, M. R. (1995). Communication applications of virtual reality. In F. Biocca & M. R. Levy (Eds.), *Communication in the age of virtual reality* (pp. 128). Hillsdale, New Jersey, USA: Lawrence Erlbaum Associates, Publishers.
3. Bolter, D., & Richard, G. (1999). *Remediation: Understanding new media*. Cambridge, MA: The MIT Press.
4. Broussard, M. (2019). *Artificial unintelligence: How computers misunderstand the world*. Cambridge: MIT Press.
5. Castells, M., Mireia, M., & Fernandez, A. (2007). *Mobile communication and society*. Massachusetts: The MIT Press.
6. Chamberlain, P. (2017). *Drones and journalism*. New York: Routledge.
7. Corcoran, M. (2014). Drone journalism: Newsgathering applications of unmanned aerial vehicles (UAVs) in covering conflict, civil unrest, and disaster. <https://cryptome.org/2014/03/drone-journalism.pdf>
8. Deuze, M. (2003). The web and its journalisms: Considering the consequences of different types of newsmedia online. *New Media & Society*, 5(2), 203-230.
9. Erdal, J. (2009). Cross-media (re)production cultures. *Convergence: The International Journal of Research into New Media Technologies*, 15(2), 215-223.
10. Filak, V. (2019). *Convergent journalism: An introduction: Writing and producing across media*. Routledge.
11. Hardee, G. M. (2016). Immersive journalism in VR: Four theoretical domains for researching a narrative design framework. ResearchGate. <https://www.researchgate.net/publication/304055227>
12. Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York and London: New York University Press.
13. Latzer, M. (2019). Convergence revisited: Toward a modified pattern of communications governance. *Convergence: The International Journal of Research into New Media Technologies*, 15(4), 411-426.
14. Lugmayr, A., & DalZotto, C. (2016). *Media convergence*. Berlin: Springer.
15. Məmmədova, L. (2015). Konvergensiya yeni medianın inkişaf faktoru kimi. *Bakı: Dil və ədəbiyyat. Beynəlxalq elmi - nəzəri jurnal*, 2, 302-304.
16. Məmmədova, L. (2015). Ənənəvi KİV ilə yeni medianın bəzi aspektləri. *Bakı Universitetinin Xəbərləri. Humanitar elmlər seriyası*, 4, 212-219.
17. Məmmədova, L. (2016). Yeni medianın konseptual xarakteristikası. In *Doktorantların və gənc tədqiqatçıların XX Respublika elmi konfransının materialları. II cild* (pp. 86-88). Bakı: Azərbaycan Dövlət Neft və Sənaye Universiteti.
18. Media convergence handbook / Editors: Lugmayr, A., & DalZotto, C. (2016). Berlin: Springer.
19. Multimedinaia jurnalistika (2017). Moscow: 413p.
20. Pavlikova, M. (2018). *Network technologies and journalism: Evolution of Finnish media*. RIP - Holding.

**Primary Paper Section: A**

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## LOGISTICS INFRASTRUCTURE MANAGEMENT IN THE SYSTEM OF DIGITAL TRANSFORMATION OF THE ECONOMY OF UKRAINE

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**Abstract:** The article examines the main aspects of the digitalization of logistics processes in the context of their impact on the efficiency and competitiveness of enterprises. It explores technological innovations such as the use of big data, the Internet of Things, and blockchain, which are changing approaches to supply chain management. The role of government policy in supporting digital logistics initiatives is analyzed, and the industry's key challenges are identified. The main directions for implementing digital innovations in global logistics networks have been determined. Factors that negatively affect the implementation of digital solutions in the activities of logistics enterprises are considered. The necessity of implementing digital technologies to optimize logistics processes and increase the stability of Ukraine's economy in the face of global changes has been proven.

**Keywords:** logistics; logistics infrastructure; national economy; digitalization of the economy; sea transport; land transport; logistics infrastructure management; digital transformation.

### 1 Introduction

In today's conditions of increased globalization and the challenges caused by the destructive impact of war, the economy of Ukraine faces numerous problems. One of the most critical issues is the need to ensure the efficiency of logistics infrastructure management. To remain competitive in international markets, Ukrainian enterprises must increase their productivity and competitiveness, which is functionally impossible without modernizing logistics systems. Implementing digital technologies in logistics opens new opportunities for optimizing business processes, reducing production costs, and increasing the speed of goods delivery. However, several obstacles and barriers to complete digitalization require careful analysis and resolution.

One of the main problems today is the insufficient development of digital infrastructure in Ukraine. Despite significant achievements in financial services and payment systems, many enterprises still use outdated technologies and management methods. This limits their ability to integrate effectively into global supply chains and quickly adapt to changing market conditions. Additionally, the lack of adequate funding, a robust technical base, and qualified personnel, exacerbated by the conditions of war, are further obstacles to the digital transformation of logistics.

Integrating digital technologies in logistics requires significant investments and changes in the organizational structure of business entities. Practice shows that this can cause resistance from management and employees who fear changes and possible job cuts. It is also necessary to ensure an appropriate level of cybersecurity, as the constant growth of digital data and the digital integration of society create new risks for information security. Successful digital transformation requires state support aimed at creating favorable conditions for introducing the latest technologies in the logistics sector. This involves developing and implementing state programs to modernize infrastructure, stimulate investment, and develop human capital. International cooperation focused on Ukraine's integration into global logistics networks is also essential.

A significant problem is the uneven development of logistics infrastructure in different regions of Ukraine. This disparity in access to modern logistics services limits opportunities for enterprises located in less developed regions. Addressing this issue requires a comprehensive state strategy that considers regional characteristics and promotes the uniform development of logistics networks throughout the country.

Considering the aforementioned problems, there is an objective need to study approaches to improving the current state of logistics infrastructure in Ukraine in the context of its digital transformation. This will help formulate recommendations for enhancing its efficiency.

### 2 Literature Review

The study of logistics infrastructure management in the context of digital transformation addresses a wide range of scientific problems, reflecting the current state and prospects for developing logistics systems amid digitalization. Much work currently focuses on using digital technologies to optimize logistics processes and their impact on the economic efficiency of enterprises.

First, it is essential to note the research by both domestic and foreign scientists who emphasize the importance of digital transformation for the development of logistics and the effective functioning of enterprises. Notably, the works of I. Britchenko [2-11], T. Kulinich [21-23], O. Ramos [26], J. Reitšpís [27], and I. Zrybneva [34] highlight that the introduction of the Internet of Things (IoT), big data, and blockchain technologies significantly increases the transparency and efficiency of supply chains. These technologies enable effective, accurate monitoring and real-time resource management, which helps reduce costs and improve the quality of customer service.

Additionally, the works of I. Arutiunian [1], Y. Danshina [12], M. Masl'an [25], M. Rudenko [29], and A. Zielińska [33] focus on analyzing the economic benefits of digitalizing logistics processes. Studies show that using digital platforms for supply chain management reduces delivery time and optimizes inventory and transportation costs. Furthermore, implementing automated systems for managing warehouse processes enhances accounting accuracy and reduces enterprise losses. Digitalization allows enterprises to respond more quickly to market changes and implement innovative solutions.

Considerable attention is also given to the role of government policy in supporting the digital transformation of logistics. Research by M. Dziamulych [13-20], T. Shmatkovska [30], and V. Zhuk [32] emphasizes the need to create favorable conditions for investments in developing digital infrastructure, primarily through state programs and stimulating the private sector to adopt the latest technologies.

Based on the analysis of existing scientific developments in the digital transformation of logistics infrastructure, there is a clear need to enhance its efficiency and competitiveness. Therefore, continued research in this area is necessary to determine optimal approaches for integrating digital technologies into logistics processes successfully.

### 3 Materials and Methods

In researching the specifics of logistics infrastructure management within Ukraine's digital transformation system, a suite of unique scientific methods was employed, enabling a comprehensive analysis of the problem and the formulation of practical recommendations.

A comparative analysis was conducted to study the current state of logistics infrastructure in Ukraine, contrasting it with systems

in other countries. This approach identified the strengths and weaknesses of Ukrainian logistics and suggested improvement methods adaptable to Ukrainian conditions.

The abstract method was utilized to generalize theoretical concepts and develop an overarching understanding of logistics infrastructure management in the context of digitalization. This method facilitated the study of the main principles of digital logistics, highlighting key elements and their functional relationships. It enabled the investigation of the interactions among various components of the logistics system under digital transformation conditions.

The inductive method was employed to derive general conclusions from the analysis of digitalization processes at the level of individual enterprises and industries. This method allowed the identification of general trends and patterns characteristic of the digital transformation of logistics in Ukraine.

The logical generalization method was used to systematize the obtained data and formulate overarching recommendations. This method involved classifying and summarizing the identified problems, enabling the proposal of strategies to address them. Additionally, the logical generalization method helped develop a holistic concept for managing logistics infrastructure amid the digital transformation of Ukraine's economy.

The research drew on scientific publications, official statistical data, analytical reports, and materials from open sources related to the digital transformation of logistics.

#### 4 Results and Discussion

In the context of the intensifying technological development of the global economy, the digitalization of logistics processes significantly impacts the efficiency and competitiveness of business entities. The introduction of digital technologies enables substantial optimization of supply chain management, enhancing transparency and accuracy. This optimization helps reduce costs and increase the speed of goods delivery to end consumers. An essential aspect of digitalization is integrating digital platforms for managing logistics operations. These platforms provide centralized management and control over all stages of the logistics process, from ordering to product delivery. This significantly reduces the time needed to perform operational tasks and improves communication effectiveness between various supply chain participants, facilitating the quick identification and resolution of existing problems.

The use of digital solutions in enterprise management is also crucial, as they enhance analytics and forecasting capabilities. Innovative analytical tools enable enterprises to better understand market and customer needs, optimizing stock levels and avoiding excessive costs. Additionally, these tools support more informed decision-making regarding the expansion or reduction of logistics capacities based on current market trends. Accordingly, digital technologies improve customer interaction and satisfaction, a critical marketing requirement. Modern systems offer transparency in tracking goods delivery, reducing the risk of losses and increasing customer confidence. Moreover, digitalization allows for a more flexible and personalized approach to service, an essential competitive factor in contemporary conditions.

Overall, the digitalization of logistics processes creates new opportunities to increase the efficiency and competitiveness of business entities. It not only improves service quality but also promotes accelerated adaptation to changing market conditions and reduces operating costs. Therefore, in the digital economy, such transformations are necessary to ensure the sustainable development of enterprises.

It should be noted that in Ukraine, the war has significantly changed logistics business processes, directly affecting the management and operational functioning of the logistics infrastructure. The main transformations have occurred in the

warehouse operations sector, driven by the need to accelerate goods sales due to the threat of loss from military actions and increasing delivery and staffing challenges. The main factors leading to the transformation of logistics business processes are defined in Table 1.

Table 1: The main factors that influenced the transformation of logistics business processes in Ukraine after the start of the war

| Factor  | Impact on business processes   |
|---|--|
| Rejection of storage and accumulation of goods  | Goods that could previously be in the warehouse for a long time were tried to be sold immediately in order to minimize the accumulation of leftovers in order to avoid product losses in the event of an attack on the warehouse   |
| Sharp and rapid changes in warehouse conditions | Companies were forced to completely move their warehouses in a few weeks or even a few days. Despite the fact that it usually takes about 3 months to start a warehouse. It includes moving the warehouse, setting up video surveillance and security, creating an IT system and its integration. Despite such difficult conditions, companies were able to move from dangerous areas and continue to work |
| Complication of logistics operations            | Due to the large number of inspections, roadblocks and the introduction of a curfew, the transportation of all goods, including food products, was disrupted   |

Source: [28]

Enhancing the efficiency of transport and logistics infrastructure management through the introduction of digital business models is a viable solution. Digital technologies optimize logistics processes, leading to a reduction in operating costs and an overall improvement in resource management. This, in turn, addresses problems in operational logistics and warehouse management. Digital software solutions facilitate rapid responses to market changes and provide more accurate forecasting and logistics planning. In the context of globalization, this is crucial for maintaining and expanding market positions both nationally and internationally.

Moreover, the digitization of business models in the transport and logistics industry enhances transportation safety and supply reliability, which is vital for the modern Ukrainian economy. The integration of digital systems allows for better real-time cargo tracking and quicker problem detection and resolution, reducing the risks of delays and losses. Additionally, digital technologies enable effective interaction among all logistics chain participants, ensuring high coordination and increasing overall productivity. Therefore, digitalization is essential for achieving sustainable development in today's highly competitive business environment.

Regarding the current application of digital software and management solutions in logistics systems, the best prospects for the next five years include digital solutions that incorporate artificial intelligence for route optimization and inventory management, cloud technologies for real-time data access and process automation, and digital platforms for integrating and coordinating supply chain participants. Furthermore, there are significant opportunities for using drones and autonomous vehicles for delivery, which will substantially increase the efficiency and speed of logistics operations.

According to experts, the planning and implementation level of digital technologies in logistics infrastructure is relatively high. Innovative approaches reduce operating costs across all supply chain components, leading to increased profitability for logistics enterprises. Simultaneously, the level of implementation of digital innovations in leading global market companies is relatively high (Figure 1).

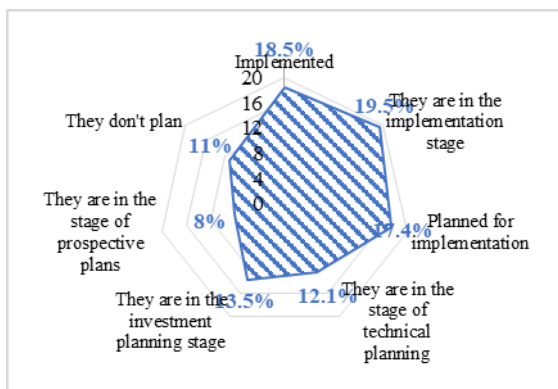


Figure 1. Readiness to implement digital innovations in global logistics networks

Source: [31]

A high level of digital technology implementation in the global logistics sector demonstrates that innovative solutions are fundamentally transforming supply chain management, making it more integrated, transparent, and efficient. Artificial intelligence and machine learning enable businesses to more accurately forecast demand and optimize inventory, reducing costs and preventing shortages. Cloud technologies provide instant access to real-time data, facilitating prompt decision-making and quick responses to market changes. Drone delivery and autonomous vehicles enhance delivery speed and reliability, minimizing human errors. Integrating digital platforms to coordinate all supply chain participants improves the coherence of actions and the effectiveness of cooperation. Consequently, digitalization optimizes operational processes and enhances the overall productivity, competitiveness, and adaptability of logistics enterprises to dynamic market changes (Table 2).

Table 2: Directions of application of digital innovative solutions for solving logistics tasks

| Technological solutions                                | Logistics tasks  |
|--|--|
| Unmanned transport systems                             | <ul style="list-style-type: none"> <li>– reducing the workload on warehouse staff;</li> <li>– reducing the number of errors in internal transport processes</li> </ul>   |
| System of digital doubles                              | <ul style="list-style-type: none"> <li>– forecasting with a much higher degree of reliability of the state of the object, as well as tracking its state in real time;</li> <li>– in-depth understanding of the processes taking place in the object, due to the development of statistics of "virtual" operation;</li> <li>– more accurate calculation of project economics;</li> <li>– identification of weak parts of the system and subsequent elimination of their shortcomings</li> </ul> |
| Data processing tools based on artificial intelligence | <ul style="list-style-type: none"> <li>– distribution of orders by machines and construction of optimal routes;</li> <li>– forecasting traffic jams</li> </ul>   |
| Blockchain   | <ul style="list-style-type: none"> <li>– increasing the reliability and transparency of the supply chain;</li> <li>– prevention of discrepancies in documentation.</li> </ul>  |
| Internet of things                                     | <ul style="list-style-type: none"> <li>– connecting transport to the Internet: transparency of the entire length of supply chains; traffic mode control; increasing discipline;</li> <li>– ensuring safety: prevention of improper operation of transport; easy access to data to investigate events;</li> <li>– asset monitoring: tracking the movement and displacement of cargo; instant description of cargo in container,</li> </ul>  |

|   |  |
|---|--|
|   | warehouse, etc.;<br>– access to the location of cargo along the entire transportation route  |
| Robotic automation of operational processes | <ul style="list-style-type: none"> <li>– automation of repetitive, standardized processes with a small number of well-defined solutions;</li> <li>– customer satisfaction and improved service quality;</li> <li>– reduction of personnel training costs;</li> <li>– work online without stopping the production process;</li> <li>– integration with existing systems.</li> </ul> |

Source: [34]

It is also worth noting that in the context of globalization and labor specialization, some digitalization functions may be less productive within the enterprise itself. In such cases, it is beneficial to consider the market, where specialist companies offer similar services at competitive prices and higher quality. Outsourcing opens up prospects for enterprises to increase the efficiency of their logistics processes. According to experts in the field of logistics, innovative technological solutions are currently being applied in areas such as autonomous transport systems, digital twins, artificial intelligence, blockchain, the Internet of Things, and robotic process automation.

However, the practical implementation of digital solutions in logistics processes faces objective obstacles, including organizational challenges and dynamic changes in market requirements, often necessitating drastic adjustments in the application of new technologies. In particular, a survey of managers from transport and logistics enterprises (allowing up to three answers) identified the main factors that negatively affected the implementation of digital solutions in their activities (Figure 2).

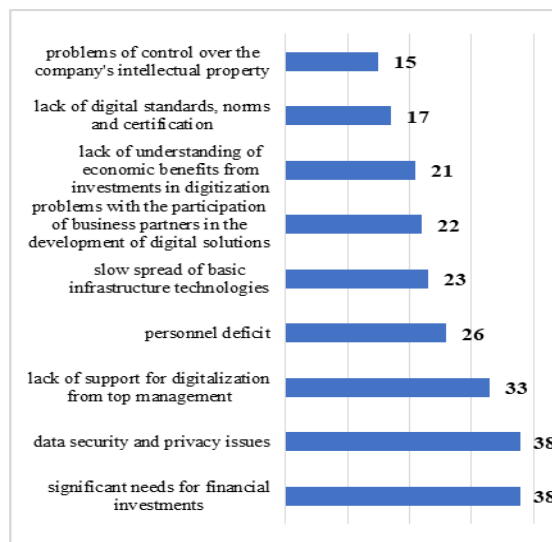


Figure 2. Factors that negatively affect the implementation of digital solutions in the activities of logistics enterprises of Ukraine, %

Source: [31]

To ensure the effective digital transformation of the logistics sector, it is essential to provide not only market incentives for enterprises to implement digital solutions in logistics business processes but also to establish state policies that support digital initiatives. Such policies can create favorable conditions for their implementation and development. Additionally, the state can directly contribute to the development of digital infrastructure through targeted investments in modern technologies and telecommunications networks. This includes expanding access to high-speed internet and ensuring reliable coverage in all regions, which forms the foundation for the effective operation of digital logistics systems.



State support should involve the development and implementation of regulatory norms that stimulate innovation and the adoption of digital technologies in the logistics sector. This can be achieved by creating a legal framework for new technologies, such as autonomous vehicles and drones, and by standardizing data and processes in logistics to facilitate the integration and interoperability of different innovative systems.

Furthermore, providing financial incentives through tax benefits and grants for enterprises investing in the digitization of operational processes is crucial. Such incentives can lower financial barriers for small and medium-sized businesses, encouraging them to adopt advanced technologies. In addition, as digital software solutions become increasingly complex, training qualified personnel is critical for the successful digital transformation of the logistics sector. This necessitates the implementation of specialized educational programs and initiatives. State support in this area is most effective when it includes funding training programs and establishing specialized training centers through public-private partnerships.

Overall, state policy plays a crucial role in creating a conducive environment for the digitalization of logistics, enhancing the efficiency, competitiveness, and sustainability of the Ukrainian economy amid global digital transformation. Adequate government support can facilitate coordination across different economic sectors, promoting a more integrated implementation of digital technologies in logistics. Additionally, the state's regulatory role in ensuring cybersecurity and data protection is vital, as these are critical aspects of modern digitalization.

## 5 Conclusion

Thus, we conclude that digitalization in logistics is a means of enhancing the competitiveness of enterprises and reducing operating costs through the optimization of inventory management. The analysis indicates that the adoption of digital technologies in logistics processes is a crucial factor for optimizing supply chains and improving customer service quality. A key aspect in this context is the establishment of a robust digital infrastructure that ensures rapid and uninterrupted real-time access to information, thereby facilitating informed management decisions.

Successful digitalization requires substantial state support, including investments in technology development, incentives for the private sector to adopt innovations, and the establishment of a favorable regulatory environment. Additionally, training qualified personnel proficient in the latest technologies and their practical application in logistics processes is essential. Therefore, it is recommended to integrate advanced digital solutions into enterprise practices, such as the automation of logistics processes, big data analytics, artificial intelligence, and other innovations that enhance demand forecasting accuracy, optimize inventory, and reduce operating costs. These measures will contribute to minimizing risks, improving the efficiency of interactions among supply chain participants, and enhancing the transparency of logistics operations at all stages.

It can be argued that digitalizing logistics infrastructure is vital for increasing Ukraine's economic stability. The implementation of modern technologies will enable Ukrainian enterprises to rapidly adapt to market conditions and ensure long-term stable development. This, in turn, will bolster the country's economic security and attractiveness to investors, creating new opportunities for growth and innovation.

## Literature:

1. Arutiunian, I., Poltavets, M., Achacha, M., Bondar, O., Pavlov, F., Gerasymenko, O., & Kulnich, T. (2021). Effective Concepts of Harmonious Management of Production Systems. *International Journal of Computer Science and Network Security (IJCSNS)*, 21 (3), 141–144.
2. Britchenko, I. (2023). Innovative approaches to business management in conditions of economic instability. *Studies of the industrial geography commission of the Polish geographical*

*society*, 37(4), 41-49.

3. Britchenko, I., & Bezpartochnyi, M. (2020). Optimization of commodity stocks the enterprise by means of HML-FMR clustering. *Financial and Credit Activity: Problems of Theory and Practice*, 3 (34), 259-269.
4. Britchenko, I., Bohomolova, N., Pinchuk, S., & Kravchenko, O. (2018). Assessment of the determinants of the financial security of railways in Ukraine. *Financial and credit activity: Problems of Theory and Practice*, 4 (27), 270-281.
5. Britchenko, I., & Cherniavska, T. (2017). Transport security as a factor of transport and communication system of Ukraine self-sustaining development. *Scientific Bulletin of Polissia*, 1 (9), 16-24.
6. Britchenko, I., Drotárová, J., Antonov, M., Kholodna, J., Polonska, O., & Popova, Y. Environmental and economic security in the conditions of digitalization of the Ukraine's economy. *AD ALTA: Journal of interdisciplinary research*, 12 (2), Special Issue XXIX, 118-122.
7. Britchenko, I., Drotárová, J., Yudenko, O., Holovina, L., Shmatkovska, T. (2022). Factors and conditions of the environmental and economic security formation in Ukraine. *AD ALTA: Journal of interdisciplinary research*, 12 (2), Special Issue XXIX, 108-112.
8. Britchenko, I., Hladchenko, S., Viktorova, L., Pronoza, I., & Ulianova, K. (2022). Information as element of enforcing the states information security. *AD ALTA: Journal of Interdisciplinary Research*, 12 (1), Special issue XXV, 110-114.
9. Britchenko, I., Kraus, N., & Kraus, K. (2019). University innovative hubs as points of growth of industrial parks of Ukraine. *Financial and Credit Activity: Problems of Theory and Practice*, 4(31). 448-456.
10. Britchenko, I., Smerichevskiy, S., & Kryvovozyuk, I. (2018). Transformation of entrepreneurial leadership in the 21st century: prospects for the future. In *Advances in Social Science, Education and Humanities Research. Proceedings of the 2nd International Conference on Social, Economic and Academic Leadership (ICSEAL 2018)*, 217, 115-121.
11. Britchenko, I., Svydruk, I., Pidlypnyi, Y., & Krupskiy, O. P. (2020). Lessons to Be Learned from Ukraine's Positioning in International Rankings: The Need for Institutional Support and Financial Support for Economic Creativity. *Management Issues*, 18(4), 90.
12. Danshina, Y., & Britchenko, I. (2018). Net structure of subject-to-subject relations in the management of the system of administrative services provision. *Baltic Journal of Economic Studies*, 3 (5), 108-115.
13. Dziamulych, M., Antoniuk, N., Tretyak, V., Rudenko, M., Solomnikov, I., Kytaichuk, T., Khomiuk, N., & Shmatkovska, T. (2023). Financial security and economic safety as the basis for sustainable development of the region. *AD ALTA: Journal of interdisciplinary research*, 13 (2), XXXVII, 150-154.
14. Dziamulych M., Krupka, I., Andruschak, Y., Petyk, M., Paslavska, R., Grudzevych, Y., Martyniuk, R. (2022). Banking liquidity risk management in Ukraine based on the application of digital and information technologies. *AD ALTA: Journal of interdisciplinary research*, 12(2), Special Issue XXIX, 102-107.
15. Dziamulych, M., Krupka, I., Petyk, V., Zaplatynskiy, M., Korobchuk, T., Synenko, V., & Avramchuk, L. (2023). Operational efficiency of Ukraine's banking system during the war. *AD ALTA: Journal of interdisciplinary research*, 13 (1), XXXII, 164-168.
16. Dziamulych, M., Krupka, M., Stashchuk, O., Korobchuk, T., Mostovenko, N., Avramchuk, L., Chyzh, N., & Tur, O. (2024). Dynamics of the monetary sector of Ukraine during the war and its impact on the efficiency of the banking system. *AD ALTA: Journal of interdisciplinary research*, 14(1). Special Issue XL, 230-234.
17. Dziamulych, M., Myskovets, I., Zubko, A., Tereshchuk, O., Baidala, V., Voichuk, M. (2022). Formation of the natural resource economics in the system of environmental and economic security. *AD ALTA: Journal of interdisciplinary research*, 12(2), Special Issue XXX, 142-146.
18. Dziamulych M., Rogach, S., Shulha, O., Stupen, N., Tendyuk, A., Stryzheus, L., & Bilochenko, A. (2023). Management of production resources of agricultural enterprises in Ukraine: a case study of Volyn region. *Scientific Papers*

Series "Management, Economic Engineering in Agriculture and Rural Development", 23(1), 179-188.

19. Dziamulych, M., Sarioglo, V., Kotenko, T., Didkivska, O., Korotkova, D., Talakh, T., & Say, V. (2023). Differentiation of income and expenditures of households in the system of formation of the demographic situation in Ukraine. *AD ALTA: Journal of interdisciplinary research*, 13(2), Special Issue XXXV, 111-115.

20. Dziamulych, M., Shmatkovska, T., Gordiichuk, A., Kupyra, M., & Korobchuk, T. (2020). Estimating peasant farms income and the standard of living of a rural population based on multi-factorial econometric modeling: a case study of Ukraine. *Scientific Papers: Series "Management, Economic Engineering in Agriculture and rural development"*, 20(1), 199-206.

21. Kulinich, T., Berezina, L., Bahan, N., Vashchenko, I., & Hurievska, V. (2021). Application of project management: lean technologies and saving manufacturing (aspects of management and public administration). *International Journal of Computer Science and Network Security (IJCSNS)*, 21 (5), 57-68.

22. Kulinich, T., Zimbalevska, Y., Trubnik, T., Obikhod, S., & Lisnievska, Y. (2022). Digitalization of economies of low and middle income countries in the context of digital transformation. *Amazonia Investiga*, 11(51), 300-311.

23. Kulinich, T., Zvonar, V., & Naidonova, N. (2021). An assessment of corporate social responsibility of companies based on national and international indices. *Ad Alta: Journal of Interdisciplinary Research*, 11(2), Special Issue XXIV, 187-190.

24. Liu, K. P. & Chiu, W. (2021). Supply Chain 4.0: the impact of supply chain digitalization and integration on firm performance. *Asian Journal of Business Ethics*, 10, 371-389.

25. Maslan, M., & Britchenko, I. (2023). Formation of an integrated system of state economic security. *AD ALTA: Journal of interdisciplinary research*, 12(2), Special Issue XXXII, 159-163.

26. Ramos, O. R., Myronenko, Y., Britchenko, I., Zhuk, O., & Patlachuk, V. (2022). Economic security as an element of corporate management. *Financial and Credit Activity: Problems of Theory and Practice*, 1(42), 304-312.

27. Reitšpis, J., Mašlan, M., & Britchenko, I. (2021). Selection and application of appropriate analytical methods needed to assess the risks reducing the security of the protected system. *Baltic Journal of Economic Studies*, 7(3), 1-8.

28. Riabchuk, O., & Smiichyk, S. (2022). Logistics of Ukraine in conditions of war. *Development of accounting, audit and taxation in the conditions of innovative transformation of socio-economic systems: Materials of the 10th International Scientific and Practical Conference*. Kropyvnytskyi: CNTU, 238-240.

29. Rudenko, M., Berezianko, T., Halysia, I., Dziamulych, M., Kravchenko, O., & Krivorychko, V. (2023). International experience of capitalization of knowledge in terms of innovation economy. *Financial and Credit Activity Problems of Theory and Practice*, 4(51), 508-518.

30. Shmatkovska, T., Kulinich, T., Dziamulych, M., Rogach, S., Bilochenko, A., Serdiukova, O. (2022). Analysis of investment efficiency in the agricultural sector of Ukraine on the basis of sustainable development. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 22(3), 649-657.

31. Ukrainian Logistics Alliance. (2024). Available at: <https://ula-online.com> (accessed on 15 June 2024).

32. Zhuk, V., Kantsurov, O., Sadovska, I., Melnyk, K., Safarova, A., Starenka, O., Nahirska, K., Nuzhna, O., & Tluchkevych, N. (2024). Calculation of the efficiency of involving the institute of audit in sustainable development of rural areas in Ukraine. *AD ALTA: Journal of interdisciplinary research*, 11(2), Special Issue XXI, 128-135.

33. Zielińska, A., Britchenko, I., & Jarosz, P. (2018). Leading innovations and investments into the new energy technologies. In *Advances in Social Science, Education and Humanities Research. Proceedings of the 2nd International Conference on Social, Economic and Academic Leadership (ICSEAL 2018)*, 217, 320-324.

34. Zrybneva, I. (2024). Analysis of the latest technologies, methods and approaches in logistics, their impact on supply chain optimization and increase of productivity. *Economy and society*, 60.

**Primary Paper Section: A**

**Secondary Paper Section: AE, AH**

## ANALYSIS OF MODERN TRENDS IN LABOUR MARKET TRANSFORMATION IN UKRAINE

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**Abstract:** The article examines the main aspects of transforming the labor market in Ukraine in the context of the destructive impact of the war and the associated economic instability. The primary factors affecting the labor market, such as migration processes, changes in the structure of employment, digitization of the economy, and the introduction of the latest technologies, are considered. The consequences of military operations on the transformation of the labor market are analyzed. Current trends in the demand for new professions, demographic changes, and the impact of state regulatory policy on employment support are explored. The prospects for developing the labor market in the context of Ukraine's European integration and the potential for increasing the competitiveness of Ukrainian workers in the European labor market are determined. The necessity of enhancing the adaptability of the workforce to modern challenges and optimizing state employment programs to ensure sustainable economic development of the country in the future has been demonstrated.

**Keywords:** labor market; migration; workforce; rural population; market transformation; management; employment structure; state employment support; reintegration into the economy; globalization; inclusive labor market; reintegration into civil society; veterans.

### 1 Introduction

The modern labor market in Ukraine is undergoing significant transformation due to several internal and external factors. One critical aspect that has significantly impacted the development of the labor market is the war, which has led to mass migration, job losses, and a general decrease in economic activity. The destructive impact of military operations creates new challenges for the working population, necessitating the development of effective strategies to overcome these consequences and restore stability.

Migration processes caused by war and economic instability affect the demographic structure of the population, which, in turn, is reflected in the labor market. A significant portion of the working population has been forced to relocate to other regions of the country or abroad in search of safe living and working conditions, resulting in a shortage of qualified personnel in specific sectors of economic activity. This complicates economic recovery and development opportunities at both national and local levels.

Simultaneously, the digitalization of the economy and the introduction of the latest technologies have a tangible impact on the labor market, presenting both challenges and opportunities. On the one hand, automation and innovative technologies contribute to increased labor productivity and the creation of new jobs. On the other hand, they can lead to a decline in traditional professions and higher qualification requirements for workers. Consequently, the workforce must adapt to new market conditions, which necessitates retraining and upgrading employees' skills.

Furthermore, military operations have significantly altered the employment structure. Many businesses have shut down or been destroyed, causing mass layoffs. This is especially noticeable in industrial regions, where there was previously a high

concentration of jobs. Concurrently, there is currently intensive development of new industries related to information technologies, drone production, remote work, and other modern activities, which requires new approaches to labor management.

In such conditions, state regulatory policy to support employment becomes a key factor in stabilizing the labor market. It is essential to investigate the effectiveness of existing employment support and social protection programs and develop new mechanisms that consider the specifics of modern challenges. Additionally, Ukraine's integration into the European economic space opens up additional opportunities for increasing the competitiveness of Ukrainian workers in the international labor market. However, developing comprehensive strategies to adapt the national education and professional training systems to European standards is necessary.

In general, the aforementioned problems underscore the relevance of studying approaches to developing effective strategies for the national labor market to ensure Ukraine's sustainable economic development in the face of modern challenges.

### 2 Literature Review

The analysis of the transformation of the labor market in Ukraine in the context of economic instability, digitalization, and demographic changes requires a comprehensive approach to studying scientific sources. Modern approaches to studying these aspects are characterized by various views on overcoming negative consequences and leveraging new opportunities for labor market development.

In particular, it is worth noting the research of I. Britchenko [3-12], T. Kulinich [16], V. Sarioglu [20], N. Turlo [31], and O. Vovchak [34], who demonstrate that military actions have caused significant changes in the employment structure of Ukraine's population, leading to job reductions and increased unemployment rates. Concurrently, in the context of increased migration flows, the importance of supporting migrants and their integration into new labor markets is emphasized. An important aspect of this research is the study of the impact of demographic changes on the labor market, analyzing the possibilities of attracting young people to economic activity and creating conditions for the return of emigrants.

Scientists such as N. Antonyuk [1], Y. Danshina [13], M. Masl'an [17], R. Sodoma [27], A. Verzun [33], and V. Zhuk [35] actively investigate issues related to the digitalization of the economy and the introduction of the latest technologies in the labor field. They argue that digital transformation can significantly increase labor productivity and create new jobs, while also highlighting the need for substantial investments in personnel training and retraining. These studies focus on developing digital skills among the population and adapting the education system to new labor market requirements.

Currently, state regulatory policy in the labor field is also the object of numerous studies. In particular, authors such as I. Arakelova [2], Y. Drobotia [14], N. Khomiuk [15], J. Reitšpís [19], and T. Shmatkovska [21-26] emphasize the importance of effective state policy in employment, especially in times of crisis. Research shows that active measures to support employment, such as retraining programs and stimulating entrepreneurship, can significantly improve the labor market situation. Additionally, in the context of Ukraine's European integration, there is a need to harmonize Ukrainian legislation and standards with European ones to facilitate worker mobility and increase competitiveness in the European labor market. The integration into the European space is asserted as a means of developing the labor market and raising the population's standard of living.

Existing scientific work highlights the multifaceted nature of labor market transformation in Ukraine and underscores the need for a comprehensive approach to address it. This necessitates deepening research to determine effective ways to develop the labor market and ensure the country's sustainable economic development.

### 3 Materials and Methods

In the study of the transformation of the labor market in Ukraine, various materials and research methods were used to ensure a comprehensive analysis and obtain reliable results. Statistical reports from the State Statistics Service of Ukraine and international organizations served as the primary data sources. Additional information was obtained from specialized scientific publications, research reports, and analytical reviews covering various aspects of labor market transformation.

The research methodology was based on the use of both quantitative and qualitative methods of analysis. Quantitative analysis included processing statistical data on employment, unemployment, migration processes, demographic changes, and other critical labor market indicators. Descriptive statistics and analytical methods were employed to identify the main trends and relationships between various indicators.

Qualitative analysis aimed to deepen the understanding of the impact of digitization, technological changes, and government policy on the labor market. Expert assessments from professionals in economics, sociology, and management were considered, providing insights into the current state and future prospects of the labor market. Additionally, content analysis methods for scientific publications and analytical reports were utilized to identify key trends and challenges.

Forecasting methods included assessing possible scenarios for the labor market's development under European integration and the introduction of the latest technologies. Specific approaches were developed to evaluate the impact of digitalization on employment and the emergence of new professions. This enabled an assessment of the directions for implementing state policies and adapting the education system.

The method of logical generalization allowed for the summarization of the obtained results and the formulation of several recommendations to enhance the workforce's adaptability to modern conditions and support the country's economic development amid contemporary challenges.

### 4 Results and Discussion

The main aspects of the transformation of the labor market in Ukraine, in the context of the destructive impact of the war and economic instability, primarily involve changes in the structure of employment. A direct consequence of the military operations was the closure of many enterprises in the war zone, significantly reducing the number of jobs. This led to the redistribution of labor resources through migration flows to relatively safer regions, causing substantial regional imbalances in the labor market. Additionally, forced internal and external migration resulted in a significant outflow of labor, particularly qualified personnel, exacerbating the shortage of specialists in specific industries and regions.

Moreover, these problems were intensified by demographic changes. The war and migration processes altered the demographic structure of the population, significantly impacting the labor market. Concurrently, existing trends of population aging and declining birth rates have long posed additional challenges to ensuring the stable development of the labor market in Ukraine. In such conditions, the effectiveness of state employment support measures becomes critical. The state should develop programs to retrain workers, support small and medium-sized businesses, and stimulate the return of migrants and their integration into the national labor market. These measures underscore the need for an integrated approach to overcome the

negative consequences of the war and ensure the sustainable development of the labor market in Ukraine.

Labor market problems in Ukraine have a long history, rooted in the economic crisis of the transition economy of the 1990s. Even before the onset of Russian military aggression in 2022, the national labor market was characterized as an unbalanced system, marked by high levels of structural and long-term unemployment (Table 1).

Table 1: Main indicators of the labor market of Ukraine for 2017-2021.

| Indicator   | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|------|------|------|------|------|
| Unemployment rate of the population (according to the ILO methodology), % | 9.9  | 9.1  | 8.6  | 9.9  | 10.3 |
| Load of registered unemployed for ten vacancies, persons                  | 7.0  | 6.0  | 9.0  | 11.0 | 7.0  |
| The level of long-term unemployment of the population aged 15-70, %       | 26.7 | 21.6 | 13.1 | 21.2 | 25.1 |
| Level of structural unemployment, in % of registered unemployment         | 12.0 | 12.7 | 12.9 | 13.0 | 13.5 |
| Unemployment rate at age:   |      |      |      |      |      |
| 25-29 years old   | 8.8  | 7.8  | 8.4  | 8.7  | 9.4  |
| 30-34 years old   | 8.1  | 7.4  | 7.3  | 8.2  | 8.4  |

Source: [29]

The discrepancy between labor demand and supply, influenced by numerous multidirectional factors, has led to various forms of unemployment, including structural unemployment. This mismatch between the structure of labor supply and demand results from the obsolescence of certain professions and the emergence of new occupations due to the digitalization of the economy. Structural unemployment indicates a low level of workforce adaptability and decreases labor resource efficiency. Consequently, even before the full-scale war, Ukraine's labor market exhibited several functional imbalances formed during large-scale transformations in previous crisis periods. These imbalances were observed in both quantitative and qualitative labor market indicators.

After the onset of the war, significant changes occurred in the labor market, particularly concerning the volume of labor supply. A notable feature of the Ukrainian national labor market in wartime is that the imbalance between labor demand and supply remains significant. This can be quantitatively analyzed through the ratio of unemployed individuals to vacant positions. Increased mortality rates among the working population, along with significant migration flows, relocation, and an increase in labor supply from women and youth, have substantially altered the structure of labor supply in various regions. For instance, at the beginning of 2022, the number of job offers decreased by more than tenfold, and the number of applicants per vacancy increased more than sevenfold. However, after stabilizing the situation in the country and businesses adapting to new challenges, the labor market underwent relative stabilization. By June 2024, competition for one vacancy had decreased, reaching an indicator of two persons per position (Figure 1).

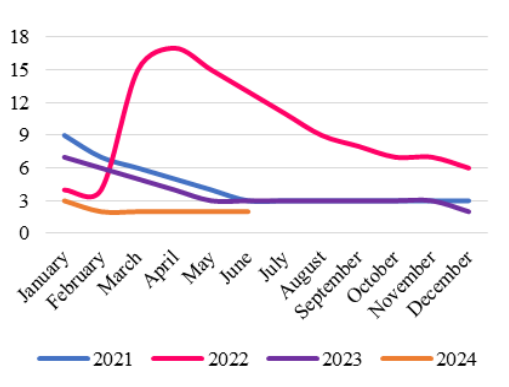


Figure 1. Dynamics of the number of applicants for one vacancy in the labor market of Ukraine for 2021-2024. Source: [30]

Thus, a specific positive trend can be identified, recognized as an intermediate result of the economic revival and partial recovery of business activity in Ukraine during 2023-2024. This occurs against the backdrop of a decrease in registered unemployment levels, which only partially reflect the true picture of employment under martial law. However, in 2024, the dynamics of population employment reveal several critical challenges for the Ukrainian labor market. Experts have noted the following issues: a lack of talented specialists, a preference for remote work, staff exhaustion and fatigue, the continuation of "grey" business practices that hinder the return of emigrants, age discrimination and gender stereotypes in personnel services, the departure of qualified workers abroad, low wages, a discrepancy between candidates' salary expectations and companies' financial capabilities, and a shortage of specialists proficient in English [31]. The unemployment rate dynamics show a sharp reduction as of 2024 (Figure 2).

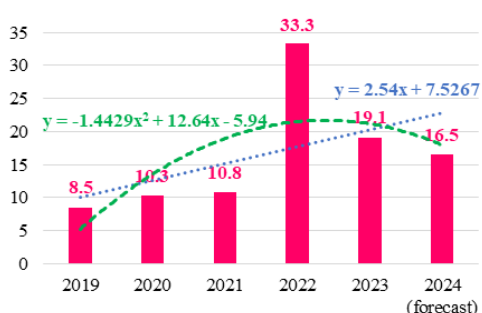


Figure 2. Dynamics of changes in the unemployment rate in Ukraine (according to the ILO methodology) for 2019-2024, %. Source: [18]

As we can see, since the beginning of the war in Ukraine, the level of unemployment has increased significantly. However, with the stabilization of the situation in 2023, the unemployment rate has gradually decreased. The parameters of the linear trend indicate that the unemployment rate during the analyzed period had a clear upward trend, with an absolute increase of 2.54%. In contrast, the analysis of the polynomial trend shows an actual annual change in the unemployment rate of 12.64% following an initial reduction of 1.44%.

It should also be noted that after the beginning of the war, specific changes occurred in Ukraine's labor market, particularly in the professional structure of the registered unemployed (Figure 3).

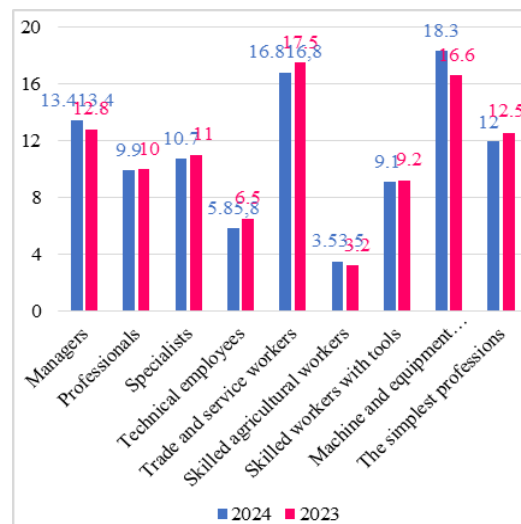


Figure 3. Changes in the professional structure of the registered unemployed in Ukraine in 2021-2023, %. Source: [28]

As we can see, the market has seen a significant reduction in the share of machinery and equipment maintenance workers in the total number of unemployed - from 18.3% in 2021 to 16.6% in 2023. The main reason for such transformations in the professional structure of the unemployed is the increase in the focus of the relevant equipment workers on self-employment job search. At the same time, the share of trade and service workers in the total number of unemployed increased from 16.8 to 17.5%. This was a consequence of the general reduction of employment opportunities in retail and wholesale trade due to the strengthening of crisis phenomena in this field and the decrease in the population's purchasing power. In addition, in the professional structure of the registered unemployed, the share of managers decreased (from 13.4 to 12.8%) with an almost unchanged share of professionals and specialists, the value of which fluctuated between 10–11%. Structural changes in other professional groups were not significant enough. In general, the professional structure of the registered unemployed did not show significant deviations from the previously formed structure of 2021.

In general, we can see that during the war, the labor market of Ukraine underwent significant transformational influences, which significantly changed its structure and dynamics. It is characterized by instability and uncertainty, rising unemployment, changes in its sectoral structure, and labor migration from Ukraine abroad. To further stabilize the labor market, ensuring the rapid restoration of facilities destroyed due to hostilities, creating new jobs, and increasing state support for the unemployed and internally displaced persons is essential.

The problem of work motivation is critical in such conditions. At the same time, it is advisable to use the motivational models used in the countries of the European Union, taking into account the development of the information society and digital economy, as well as work in stressful situations, as a basis for the formation of personnel motivation systems. Thus, stabilizing the labor market and increasing labor motivation in martial law conditions can ensure economic stability in Ukraine.

It should be noted that technological changes and digitalization increase the importance of skills as an economic tool. In particular, the need for more qualified skills among labor market workers is one of the main barriers to introducing new technologies and innovative development of the national economy. Therefore, countries whose education and labor systems effectively combat this problem can benefit the most from the digital transformation of the labor market while reducing its negative consequences.

At the same time, since digitalization leads to a general reduction in the need for labor, its intensification is a way out of the crisis in Ukraine, where there is a shortage of specific categories of workers. At the same time, according to UN estimates, the number of internally displaced persons as of August 1, 2023, was 6,262,900. According to expert forecasts, the share of people remaining abroad may vary from 40 to 60%. According to the Ministry of Economy, over the next ten years, Ukraine will have to attract an additional 4.5 million employees to the labor market [32]. All this gives reason to consider digitization as a factor that will help reduce the need for the labor force by replacing human labor with digital technologies.

Therefore, to effectively develop the labor market in Ukraine in the context of the digitalization of the labor relations system, it is necessary to implement its state stimulation programs by using administrative and financial levers to create new types of jobs related to digital technologies. It is also necessary to use the institutional mechanisms of state regulation to ensure budgetary financing of retraining programs for employees most susceptible to digitalization. In addition, in our opinion, it is necessary to accelerate the acceleration of social adaptation of the population to the challenges of the digital economy, which consists of the mandatory constant improvement of the level of qualifications and the promotion of new skills in the interactive space of the digital ecosystem.

## 5 Conclusion

Thus, we conclude that the onset of Russian aggression against Ukraine has led to a significant reduction in employment due to decreased business activity, the closure of numerous enterprises, and the economic constraints faced by those that remained operational. The most substantial job losses occurred in 2022, driven by decreased production volumes, disrupted industrial relations, and the destruction of enterprises in conflict zones.

From 2022 to 2023, the employment structure shifted, with an increased share of managers, specialists, technical employees, and machinery maintenance workers. Conversely, the shares of trade workers and skilled workers using tools declined, with the most significant decrease observed in lower-level professions. These changes align with the professional structure of registered unemployed individuals, where there was a noted reduction in machinery maintenance workers and an increase in trade and service workers among the unemployed. This shift is likely due to reduced employment opportunities in retail and wholesale trade, exacerbated by the war's destructive impact.

Addressing these challenges requires systemic solutions to stabilize Ukraine's labor market. Adapting to European Union requirements, which can boost employee motivation and reduce migration, is currently seen as a primary approach to solving these issues. Additionally, state-driven economic digitalization is essential to mitigate future labor shortages by introducing new forms and types of economic activity into Ukraine's national economy.

## Literature:

1. Antoniuk, N., Melnykova, K., Kholodna, Y., Britchenko, I., Khomiuk, N., Rogach, S., & Shmatkovska, T. (2023). Financial support of logistics: security aspects and sustainable development (in Ukrainian context). *AD ALTA: Journal of interdisciplinary research*, 13(2), Special Issue XXXVIII, 135-140.
2. Arakelova, I., Shulpina, N., Tokareva, V., Nahorna, O., Shulha, O., Khomiuk, N., Sodoma, R., Shmatkovska, T. (2024). Research and management of the price policy in the field of marketing services of the enterprise using modern information technologies in the conditions of sustainable development. *AD ALTA: Journal of interdisciplinary research*, 14(1), Special Issue XL, 240-244.
3. Britchenko, I. (2023). Innovative approaches to business management in conditions of economic instability. *Studies of the industrial geography commission of the Polish geographical society*, 37(4), 41-49.

4. Britchenko, I., & Bezpartochnyi, M. (2020). Optimization of commodity stocks the enterprise by means of HML-FMR clustering. *Financial and Credit Activity: Problems of Theory and Practice*, 3 (34), 259-269.
5. Britchenko, I., Bohomolova, N., Pinchuk, S., & Kravchenko, O. (2018). Assessment of the determinants of the financial security of railways in Ukraine. *Financial and credit activity: Problems of Theory and Practice*, 4 (27), 270-281.
6. Britchenko, I., & Cherniavska, T. (2017). Transport security as a factor of transport and communication system of Ukraine self-sustaining development. *Scientific Bulletin of Polissia*, 1 (9), 16-24.
7. Britchenko, I., Drotárová, J., Antonov, M.; Kholodna, J.; Polonska, O.; & Popova, Y. Environmental and economic security in the conditions of digitalization of the Ukraine's economy. *AD ALTA: Journal of interdisciplinary research*, 12 (2), Special Issue XXIX, 118-122.
8. Britchenko, I., Drotárová, J., Yudenko, O., Holovina, L., Shmatkovska, T. (2022). Factors and conditions of the environmental and economic security formation in Ukraine. *AD ALTA: Journal of interdisciplinary research*, 12 (2), Special Issue XXIX, 108-112.
9. Britchenko, I., Hladchenko, S., Viktorova, L., Pronoza, I., & Ulianova, K. (2022). Information as element of enforcing the states information security. *AD ALTA: Journal of Interdisciplinary Research*, 12 (1), Special issue XXV, 110-114.
10. Britchenko, I., Kraus, N., & Kraus, K. (2019). University innovative hubs as points of growth of industrial parks of Ukraine. *Financial and Credit Activity: Problems of Theory and Practice*, 4(31). 448-456.
11. Britchenko, I., Smerichevskiy, S., & Kryvovozyuk, I. (2018). Transformation of entrepreneurial leadership in the 21st century: prospects for the future. In *Advances in Social Science, Education and Humanities Research. Proceedings of the 2nd International Conference on Social, Economic and Academic Leadership (ICSEAL 2018)*, 217, 115-121.
12. Britchenko, I., Svydruk, I., Pidlynyi, Y., & Krupskiy, O. P. (2020). Lessons to Be Learned from Ukraine's Positioning in International Rankings: The Need for Institutional Support and Financial Support for Economic Creativity. *Management Issues*, 18(4), 90.
13. Danshina, Y., & Britchenko, I. (2018). Net structure of subject-to-subject relations in the management of the system of administrative services provision. *Baltic Journal of Economic Studies*, 3 (5), 108-115.
14. Drobotya, Y., Baldzhy, M., Pecheniuk, A., Savelchuk, I., Hryhorenko, D., & Kulinich, T. (2021). Overcoming Poverty and Social Inequality in Third World Countries (Latin America, Africa). *International Journal of Computer Science and Network Security (IJCSNS)*, 21 (3), 295-303.
15. Khomiuk, N., Bochko, O., Pavlikha, N., Demchuk, A., Stashchuk, O., Shmatkovska, T., & Naumenko, N. (2020). Economic modeling of sustainable rural development under the conditions of decentralization: a case study of Ukraine. *Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development"*, 20(3), 317-332.
16. Kulinich, T., Pikus, R., Kuzmenko, O., Vasilieva, S., Melnik, V., & Orel, M. (2022). Cognitive Aspects of the Strategic Management System under Uncertainty. *Postmodern Openings*, 13(3), 166-179.
17. Mas'fan, M., & Britchenko, I. (2023). Formation of an integrated system of state economic security. *AD ALTA: Journal of interdisciplinary research*, 12(2), Special Issue XXXII, 159-163.
18. National Bank of Ukraine. Available at: <https://bank.gov.ua/> (accessed on 15 June 2024).
19. Reitšpis, J., Mašfan, M., & Britchenko, I. (2021). Selection and application of appropriate analytical methods needed to assess the risks reducing the security of the protected system. *Baltic Journal of Economic Studies*, 7(3), 1-8.
20. Sarioglo, V., Levkovska, L., Kotenko, T., Horemykina, Y., Didkivska, O., Rozbytskyi, M., Shmatkovska, T. (2024). Dynamics of formation of the labour market and employment of the rural population of Ukraine: a case study of Vinnytsia region. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 24(1), 857-866.

21. Shmatkovska, T., Agres, O., Luchechko, Y., Korobchuk, L., Naumenko, N., Voichuk, M., Dziamulych, M. (2023). Realities and prospects of managing the development of agricultural business in Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 23(4), 777-783.
22. Shmatkovska, T., Derevianko, S., Rogach, S., Shulha, O., Chudovets, V., Artemchuk, L., Begun, S., Khomiuk, N. (2023). Financial, accounting-analytical support and management of economic security in the system of sustainable development. *AD ALTA: Journal of interdisciplinary research*, 13(2), Special Issue XXXVII, 155-159.
23. Shmatkovska, T., Krupka, I., Synenko, V., Sydorenko, R., Mostovenko, N., Talakh, T., Danchevska, I., & Melnyk, N. (2023). Accounting and analytical tools for the formation of subordinated debt of commercial banks in Ukraine. *AD ALTA: Journal of interdisciplinary research*, 13(1), Special Issue XXXIV, 52-55.
24. Shmatkovska, T., Kulinich, T., Dziamulych, M., Rogach, S., Bilochenko, A., Serdiukova, O. (2022). Analysis of investment efficiency in the agricultural sector of Ukraine on the basis of sustainable development. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 22(3), 649-657.
25. Shmatkovska, T., Shubalyi, O., Rogach, S., Kupyra, M., Dobrianskyi, O., Shved, A., & Voichuk, M. (2023). Simulation of socio-economic security of rural areas in the conditions of sustainable development: a case study of Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 23(1), 709-718.
26. Shmatkovska, T., Volynets, L., Dielini, M., Magopets, O., Kopchykova, I., Kytaichuk, T., Popova, Yu. (2022). Strategic management of the enterprise using the system of strategic management accounting in conditions of sustainable development. *AD ALTA: Journal of interdisciplinary research*, 12(2), Special Issue XXIX, 123-128.
27. Sodoma, R., Lesyk L., Hryshchuk, A., Dubynetska, P., & Shmatkovska, T. (2022). Innovative development of rural territories and agriculture in Ukraine. *Scientific Papers. Series "Management, Economic Engineering in Agriculture and rural development"*, 22(4), 685-696.
28. State Employment Service of Ukraine. Available at: <https://dsz.gov.ua/> (accessed on 15 June 2024).
29. State Statistics Service of Ukraine. Available at: <https://ukrstat.gov.ua/> (accessed on 15 June 2024).
30. Transparent work. (2024). Available at: <https://robota.ua/> (accessed on 15 June 2024).
31. Turlo, N. P., & Osadchuk, O. V. (2024). The state of the labor market and the motivation of personnel in Ukraine under martial law. *Economic space*, 191, 97-103.
32. Ukraine Refugee Situation. Operational Data Portal. (2024). Available at: [https:// data.unhcr.org/en/situations/ukraine/](https://data.unhcr.org/en/situations/ukraine/) (accessed on 15 June 2024).
33. Verzun, A., Voynycha, L., Fedyk, O., Shulha, O., Lypych, L., Shmatkovska, T., & Herylo, V. (2023). Export potential of agricultural-industrial complex of Ukraine: logistics and development prospects. *Scientific Papers Series Management, Economic Engineering in Agriculture & Rural Development*, 23(4), 915-926.
34. Vovchak, O., Halkiv, L., Kulinich, T., & Zhaivoronok, I. (2020). Formation of Financially Stable Pension System in Ukraine: Challenges, Prerequisites, Criteria, Measures. *Financial and Credit Activity Problems of Theory and Practice*, 4(35), 249-257.
35. Zhuk, V., Kantsurov, O., Sadovska, I., Melnyk, K., Safarova, A., Starenka, O., Nahirska, K., Nuzhna, O., & Tluchkevych, N. (2024). Calculation of the efficiency of involving the institute of audit in sustainable development of rural areas in Ukraine. *AD ALTA: Journal of interdisciplinary research*, 11(2), Special Issue XXI, 128-135.

**Primary Paper Section:** A

**Secondary Paper Section:** AE, AH



## MANAGEMENT OF LOGISTICS INFRASTRUCTURE IN THE SYSTEM OF DIGITAL TRANSFORMATION OF THE ECONOMY OF UKRAINE

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**Abstract:** The article examines the features of the digital transformation of Ukraine's economy and its impact on logistics infrastructure management, focusing on increasing the efficiency of logistics operations, reducing costs, and enhancing the competitiveness of enterprises. The main aspects of logistics infrastructure management in the digital economy are studied, particularly the introduction of modern digital technologies such as automation, the Internet of Things, blockchain, and big data analytics. Approaches to integrating digital solutions into logistics processes, modernizing transport and warehouse systems, and developing intelligent transport networks are considered. The need for cooperation between the public and private sectors to create optimal conditions for the operation of the logistics infrastructure is determined. The main problems and prospects of implementing digital technologies in logistics are clarified, and recommendations are offered for optimizing processes and increasing the digital maturity level of Ukraine's logistics infrastructure to ensure sustainable economic development.

**Keywords:** logistics; logistics infrastructure; logistics management; service facilities; digital transformation; digital technologies; sustainable development; business model.

### 1 Introduction

Logistics infrastructure management in Ukraine's digital transformation is one of the critical issues affecting the country's competitiveness in the international market. Integrating the national economy into global economic processes necessitates modernizing logistics systems and adapting them to new digital challenges.

The main problem is the imperfection of the existing logistics infrastructure, which often does not meet modern requirements and standards. In particular, outdated technologies and processes, limited capacity of transport networks, and insufficient coordination between different modes of transport and warehouse chains lead to high costs and increased delivery times. Additionally, Ukraine's weak integration into interstate logistics systems requires priority solutions in the European integration process. These factors significantly reduce the competitiveness of Ukrainian enterprises in the global market.

It is also necessary to note the insufficient flexibility of logistics processes, which makes it challenging to adapt to rapid changes in the market and increase the efficiency of enterprises. Furthermore, the lack of a unified strategy for developing logistics infrastructure and coordinating actions between state bodies and private enterprises creates additional barriers to effectively managing logistics processes at both the macro and micro levels. An integral part of the problem is the limited financial resources and investment opportunities for modernizing logistics infrastructure. Many projects remain unrealized due to insufficient funding, which slows down the digital transformation process. This issue has significantly worsened after the Russian aggression and the start of a full-scale war, necessitating state assistance in developing infrastructure. In this regard, there is an objective need to develop comprehensive approaches to logistics infrastructure

management that consider the modern requirements and challenges of the digital economy. It is essential to create conditions for attracting investments in developing logistics networks, establishing new transport corridors, and systematically improving the professional training of specialists in logistics.

Thus, the need to form a logistics infrastructure development strategy highlights the urgency of researching innovative approaches to its management, considering the specifics of the Ukrainian economy and its future European integration. Their development will ensure the effective functioning of Ukraine's logistics system and contribute to the growth of its competitiveness and sustainable economic development.

### 2 Literature Review

The study of logistics infrastructure management issues in the context of digital transformation encompasses a wide range of research addressing various aspects of this topic. Existing scientific developments outline the main directions for development and identify critical problems and prospects in this field.

Fundamental studies on this problem, focusing on the general principles and methods of logistics systems management, are highlighted in the works of authors such as N. Antoniuk [1], N. Khomiuk [22], T. Shmatkovska [26-31], and others. These works define the theoretical foundations and practical aspects of applying various models of logistics management in a global context. The research emphasizes the importance of an integrated approach to managing logistics processes and the need to use modern information technologies to improve efficiency.

Significant contributions to the study of digital transformation have been made by scientists such as I. Britchenko [3-12], V. Sarioglo [25], R. Sodoma [32], A. Verzun [35], and others. Their works focus on the adaptation of logistics models to Ukrainian realities, addressing issues such as the modernization of transport corridors, improving coordination between different types of transport, and forming a unified information platform for managing logistics processes. Special attention is given to developing transport infrastructure, a critical element of the logistics system. These studies indicate the need to modernize logistics infrastructure and introduce innovative solutions in logistics management. They also highlight the importance of integrating new transport corridors connecting Ukraine with European markets, considering Ukraine's future European integration.

An essential aspect of scientific research is the role of public policy and public-private partnerships in developing logistics infrastructure. The works of I. Arakelova [2], M. Dziamulych [13-21], M. Rudenko [24], and others analyze the main directions of state policy, particularly in attracting investments, reforming the legislative framework, and supporting private initiatives in logistics. These studies indicate the need to create favorable conditions for developing logistics infrastructure through public-private partnerships.

In general, modern research shows that managing logistics infrastructure in the context of Ukraine's digital transformation is a multifaceted problem requiring a comprehensive approach and consideration of regional economic specifics. There is also a need for further research in this area to develop effective strategies for managing logistics processes to ensure the country's sustainable economic development.

### 3 Materials and Methods

In researching the principles of logistics infrastructure management in the context of the digital transformation of the economy, a comprehensive approach combining several

scientific analysis methods was applied. This approach allowed for the thorough examination of various aspects of the investigated problem.

The primary sources of research information included specialized scientific publications focused on logistics, logistics systems management, digital transformation of the economy, and infrastructure development; official statistical data from the State Statistics Service of Ukraine and international organizations; the legal framework of Ukraine regarding the regulation of logistics and transport; and documents related to the digital transformation of the economy.

Both general and specific methods of scientific inquiry were employed to achieve the research goals and solve the identified problems. Specifically, the analysis method was used for a detailed study of the components of logistics infrastructure, identifying its problematic aspects, and assessing the impact of digital technologies on logistics processes. The analysis of statistical data and scientific literature enabled the identification of key trends and issues in managing Ukraine's logistics infrastructure.

The comparison method was utilized to analyze logistics systems and infrastructure solutions in different countries, aiming to determine the experience of adapting logistics management models and their application in Ukraine. Comparing the efficiency indicators of logistics systems and their digital maturity helped outline the developmental direction for the Ukrainian economy.

The method of logical generalization facilitated the formulation of key conclusions and recommendations regarding logistics infrastructure management in the context of digital transformation. This method helped structure the obtained data and identify the main patterns and trends.

The expert evaluation method was used to validate the research results and gather additional information by studying the experiences of experts in logistics and digital technologies. This method accounted for the opinions of leading specialists and provided an objective assessment of the state and prospects for the development of Ukraine's logistics infrastructure.

Data collection involved analyzing scientific publications, statistical data, regulatory acts, and expert assessments. A detailed analysis of Ukraine's logistics infrastructure and its comparison with similar systems in other countries was conducted based on the collected data. The study's results were summarized to formulate conclusions and recommendations.

Thus, the application of all specified methods provided a comprehensive approach to studying logistics infrastructure management in the context of Ukraine's digital transformation, contributing to obtaining objective and scientifically based results.

#### 4 Results and Discussion

The current digital transformation of Ukraine's economy aims to significantly change the structure and functioning of various sectors, including logistics infrastructure. This transformation is characterized by the intensive implementation of modern information and communication technologies, which enhance the efficiency, transparency, and flexibility of logistics management. A key feature of this transformation is the comprehensive adoption of digital platforms and online services, contributing to more efficient logistics process management. These technological solutions help reduce costs, optimize transportation routes, and improve inventory management within logistics systems. They also reduce order processing times and enhance overall customer service. Digitalization enables enterprises to integrate various links of the logistics chain into a unified system, ensuring transparency and increased control over all operations.

Practically, the implementation of digital solutions, such as electronic document management and digital platforms for transportation management, significantly reduces bureaucratic procedures and accelerates cargo processing in logistics. This is particularly crucial for international shipments, where the speed and accuracy of documentation are essential. Digital technologies enable Ukrainian enterprises to interact more effectively with foreign partners, enhancing their competitiveness in the global market.

A critical aspect of today's digital transformation is the implementation of real-time data-based monitoring and control systems. These systems allow for quicker responses to changes in logistics processes, the prevention of delays, and the minimization of risks. Additionally, such systems enable the analysis of large volumes of data, supporting more informed management decisions. Consequently, digital transformation fosters the development of new business models in logistics, such as platforms for sharing vehicles and warehouse space. These innovations reduce logistics costs and make processes more flexible and adaptable to market needs.

However, digital transformation presents several challenges. One of the primary challenges is the need for substantial investments in technology and infrastructure. Amid the instability caused by the ongoing war, this can pose a significant barrier for many Ukrainian enterprises. The personnel factor is also critical, as a shortage of specialists in digital technologies can slow the transformation process. Additionally, the growth of digital technologies increases the risk of cyber-attacks, which can lead to data loss and disrupt logistics systems. Therefore, it is essential to implement modern information protection measures and develop strategies for responding to cyber threats to ensure the effectiveness of digital systems.

Thus, the digital transformation of Ukraine's economy significantly impacts logistics infrastructure management, enhancing its efficiency and competitiveness. However, to achieve optimal results, Ukrainian enterprises must overcome challenges such as attracting additional infrastructure investments and ensuring the cybersecurity of logistics systems.

To assess the efficiency and effectiveness of logistics systems, consider the country's Logistics Productivity Index (Figure 1).

As seen, Ukraine's overall LPI Index indicates it is among the countries with an average level of logistics systems and infrastructure development. However, infrastructure development and customs barriers are among the most problematic indicators, necessitating measures to improve regulatory legislation in international trade and increase investment in infrastructure projects.

Managing logistics infrastructure in the digital economy is a multifaceted process that integrates modern technologies and optimizes logistics processes to increase industry efficiency. Key aspects of such management include implementing digital technologies, integrating logistics systems, managing data, and developing innovative logistics solutions.

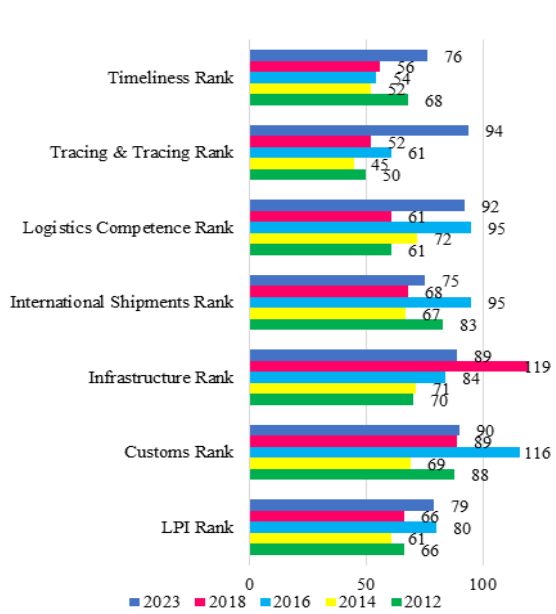


Figure 1. Dynamics of LPI Rank of Ukraine and its sub-indicators for 2012-2023. Source: [23]

Implementing digital technologies is currently a crucial aspect of logistics infrastructure management. Technologies such as electronic document management, warehouse operations management systems (WMS), and transport management systems (TMS) help reduce costs, accelerate processes, and improve data accuracy. Additionally, digital platforms enhance the transparency and controllability of logistics operations, facilitating faster information exchange among all participants in the supply chain.

The integration of logistics systems ensures consistency and coordination between various elements of the logistics infrastructure. Integrated management systems help create a unified information environment where all processes, from ordering a product to its delivery to the end consumer, can be tracked and optimized in real time. This integration shortens order fulfillment times and reduces the risks associated with inconsistencies between different logistic links within the system.

Digital solutions in data management have shown particular effectiveness. The use of big data and analytical tools allows for detailed analysis of logistics processes, forecasting supply and demand, and identifying opportunities for optimizing supply chains. Furthermore, innovative solutions such as autonomous vehicles, drones for delivery, and robotic systems in warehouses significantly increase the productivity of logistics operations and reduce costs for enterprises.

These innovative solutions rely on the operational processing of large amounts of data regarding orders, market dynamics, and potential consumer needs. Such approaches enhance the efficiency of logistics management, reduce costs, and ensure a high level of customer service—critical success factors in the modern economic environment.

Under these conditions, the volume of investments in the country's logistics infrastructure, from both state financing and private investors, becomes vital (Figure 2).

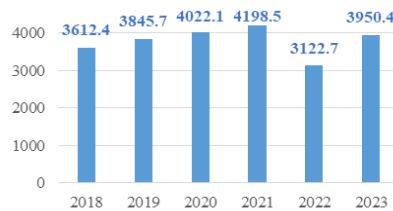


Figure 2. The dynamics of total investments in Ukraine's logistics infrastructure for 2018-2023, UAH million. Source: [33]

As we can see, the positive dynamics of investment growth in logistics infrastructure were significantly disrupted with the onset of the war. In 2022, investments sharply decreased from UAH 4198.5 million to 3122.7 million, a decline of 25.7%. The recovery of investment volume in 2023 is primarily due to the inflationary increase in project costs rather than an actual increase in investments. Consequently, there is a need to develop digital solutions that would enhance the efficiency of Ukraine's existing logistics infrastructure.

Specialized TMS (Transportation Management Systems) and WMS (Warehouse Management Systems) are critical digital solutions for integrating and optimizing logistics infrastructure management. These systems are fundamental components of the digital transformation of logistics infrastructure. They ensure the integration of modern technologies into logistics management, contributing to increased efficiency, accuracy, and transparency in logistics processes. They provide a comprehensive approach to managing transport and warehouse operations, significantly improving coordination and control throughout the logistics chain.

TMS automates and optimizes cargo transportation processes, which is crucial for reducing costs and increasing delivery speed. This system uses sophisticated algorithms to plan and optimize routes, considering various logistics parameters such as cost, delivery time, and road restrictions. As a result, logistics enterprises can use their transport resources more efficiently, reducing transportation costs and increasing delivery reliability. Additionally, TMS provides real-time monitoring and management of vehicles and cargo, allowing for quick responses to changes or unforeseen situations, thereby enhancing the transparency and controllability of logistics operations.

WMS automates and optimizes warehouse operations. This system provides effective inventory management, improving receiving, storing, and shipping processes. WMS tracks each product's location in real-time, facilitating fast and accurate order fulfillment. It also optimizes warehouse space and resources, reducing storage costs and increasing productivity. A critical feature of WMS is its ability to integrate with other enterprise systems, such as ERP (Enterprise Resource Planning) and TMS, ensuring seamless data exchange between different parts of the logistics chain. According to experts from the Ukrainian Logistics Alliance, implementing TMS and WMS has allowed Ukrainian enterprises to gradually increase additional profit generated by the enhanced efficiency of digital management solutions (Figure 3).

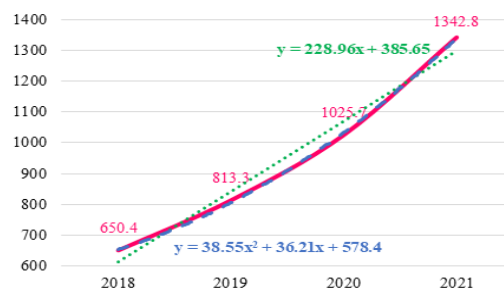


Figure 3. Profit growth of Ukrainian enterprises that have integrated TMS and WMS digital solutions into their operations for 2018-2021, UAH million. Source: [34]

From the calculations, we observe that the parameters of the linear trend indicate a tendency for profit to grow by UAH 228.96 million, with an absolute increase of UAH 228.96 million. Additionally, the polynomial trend analysis reveals that the actual annual change in the profit of logistics enterprises amounted to UAH 36.21 million, compared to the initial growth of UAH 35.55 million.

The functional integration of TMS and WMS creates a unified information environment for managing logistics infrastructure at the enterprise level. This integration ensures consistency and coordination between transport and warehouse operations, leading to more efficient resource management and reduced logistics costs. Therefore, utilizing such integrated systems enables enterprises to adapt quickly to market conditions and changes in customer requirements, thereby increasing their market competitiveness.

One of the key advantages of using TMS and WMS is the capability to analyze large volumes of data and make informed management decisions. These systems facilitate the collection and analysis of data on all logistics processes, enabling the identification of trends and anomalies, which helps optimize operations and enhance management efficiency. Additionally, the use of TMS and WMS improves customer service by ensuring the accurate and timely fulfillment of orders, thereby increasing customer satisfaction and strengthening their trust in the company. Integration with other systems, such as CRM, allows companies to better understand customer needs and expectations, offering more personalized and practical solutions.

Thus, integrating digital solutions through TMS and WMS provides a comprehensive approach to managing logistics infrastructure, enhancing the efficiency, accuracy, and transparency of logistics processes. This integration helps reduce costs, improve customer service, and increase companies' competitiveness in the market.

## 5 Conclusion

Thus, we conclude that logistics infrastructure management is critical for increasing enterprises' efficiency and competitiveness during the digital transformation of Ukraine's economy. Implementing modern digital solutions, such as TMS and WMS, allows for the optimization of transport and warehouse processes, reducing costs and increasing the accuracy and speed of order fulfillment. Research shows that businesses actively using these systems experience a significant increase in profitability, confirming the effectiveness of digital innovation in logistics. Consequently, digital technologies contribute to forming integrated information systems that ensure transparency and control over all logistics operations. An important aspect is the development of big data analytics, which allows for real-time monitoring and management of logistics processes and enables informed management decisions based on detailed data analysis.

Investments in developing logistics infrastructure, which ensure the modernization of transport and warehouse systems and increase their efficiency and adaptability to modern market requirements, play a significant role in digital transformation. This relevance is heightened in wartime conditions, as enterprises strive to accelerate stock turnover and avoid excessive accumulation in warehouses.

Therefore, managing logistics infrastructure in the context of Ukraine's digital economy transformation requires a comprehensive approach that includes introducing modern technologies and increasing investments in infrastructure development. This approach will ensure sustainable economic growth and enhance the competitiveness of Ukrainian enterprises in the global market.

## Literature:

1. Antoniuk, N., Melnykova, K., Kholodna, Y., Britchenko, I., Khomiuk, N., Rogach, S., & Shmatkovska, T. (2023). Financial support of logistics: security aspects and sustainable

development (in Ukrainian context). *AD ALTA: Journal of interdisciplinary research*, 13(2), Special Issue XXXVIII, 135-140.

2. Arakelova, I., Shulpina, N., Tokareva, V., Nahorna, O., Shulha, O., Khomiuk, N., Sodoma, R., Shmatkovska, T. (2024). Research and management of the price policy in the field of marketing services of the enterprise using modern information technologies in the conditions of sustainable development. *AD ALTA: Journal of interdisciplinary research*, 14(1), Special Issue XL, 240-244.

3. Britchenko, I. (2023). Innovative approaches to business management in conditions of economic instability. *Studies of the industrial geography commission of the Polish geographical society*, 37(4), 41-49.

4. Britchenko, I., & Bezpartochnyi, M. (2020). Optimization of commodity stocks the enterprise by means of HML-FMR clustering. *Financial and Credit Activity: Problems of Theory and Practice*, 3 (34), 259-269.

5. Britchenko, I., Bohomolova, N., Pinchuk, S., & Kravchenko, O. (2018). Assessment of the determinants of the financial security of railways in Ukraine. *Financial and credit activity: Problems of Theory and Practice*, 4 (27), 270-281.

6. Britchenko, I., & Cherniavska, T. (2017). Transport security as a factor of transport and communication system of Ukraine self-sustaining development. *Scientific Bulletin of Polissia*, 1 (9), 16-24.

7. Britchenko, I., Drotárová, J., Antonov, M., Kholodna, J., Polonska, O. & Popova, Y. Environmental and economic security in the conditions of digitalization of the Ukraine's economy. *AD ALTA: Journal of interdisciplinary research*, 12 (2), Special Issue XXIX, 118-122.

8. Britchenko, I., Drotárová, J., Yudenko, O., Holovina, L., Shmatkovska, T. (2022). Factors and conditions of the environmental and economic security formation in Ukraine. *AD ALTA: Journal of interdisciplinary research*, 12 (2), Special Issue XXIX, 108-112.

9. Britchenko, I., Hladchenko, S., Viktorova, L., Pronoza, I., & Ulianova, K. (2022). Information as element of enforcing the states information security. *AD ALTA: Journal of Interdisciplinary Research*, 12 (1), Special issue XXV, 110-114.

10. Britchenko, I., Kraus, N., & Kraus, K. (2019). University innovative hubs as points of growth of industrial parks of Ukraine. *Financial and Credit Activity: Problems of Theory and Practice*, 4(31). 448-456.

11. Britchenko, I., Smerichevskyi, S., & Kryvovyazyuk, I. (2018). Transformation of entrepreneurial leadership in the 21st century: prospects for the future. In *Advances in Social Science, Education and Humanities Research. Proceedings of the 2nd International Conference on Social, Economic and Academic Leadership (ICSEAL 2018)*, 217, 115-121.

12. Britchenko, I., Svydruk, I., Pidlypnyi, Y., & Krupskyi, O. P. (2020). Lessons to Be Learned from Ukraine's Positioning in International Rankings: The Need for Institutional Support and Financial Support for Economic Creativity. *Management Issues*, 18(4), 90.

13. Dziamulych, M., Antoniuk, N., Tretyak, V., Rudenko, M., Solomnikov, I., Kytaichuk, T., Khomiuk, N., & Shmatkovska, T. (2023). Financial security and economic safety as the basis for sustainable development of the region. *AD ALTA: Journal of interdisciplinary research*, 13 (2), XXXVII, 150-154.

14. Dziamulych M., Krupka, I., Andruschak, Y., Petyk, M., Paslavskaya, R., Grudzevych, Y., Martyniuk, R. (2022). Banking liquidity risk management in Ukraine based on the application of digital and information technologies. *AD ALTA: Journal of interdisciplinary research*, 12(2), Special Issue XXIX, 102-107.

15. Dziamulych, M., Krupka, I., Petyk, V., Zaplatynskyi, M., Korobchuk, T., Synenko, V., & Avramchuk, L. (2023). Operational efficiency of Ukraine's banking system during the war. *AD ALTA: Journal of interdisciplinary research*, 13 (1), XXXII, 164-168.

16. Dziamulych, M., Krupka, M., Stashchuk, O., Korobchuk, T., Mostovenko, N., Avramchuk, L., Chyzh, N., & Tur, O. (2024). Dynamics of the monetary sector of Ukraine during the war and its impact on the efficiency of the banking system. *AD ALTA: Journal of interdisciplinary research*, 14(1), Special Issue XL, 230-234.

17. Dziamulych, M., Myskovets, I., Zubko, A., Tereshchuk, O., Baidala, V., Voichuk, M. (2022). Formation of the natural resource economics in the system of environmental and economic security. *AD ALTA: Journal of interdisciplinary research*, 12(2), Special Issue XXX, 142-146.
18. Dziamulych M., Rogach, S., Shulha, O., Stupen, N., Tendyuk, A., Stryzheus, L., & Bilochenko, A. (2023). Management of production resources of agricultural enterprises in Ukraine: a case study of Volyn region. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 23(1), 179-188.
19. Dziamulych, M., Sadovska, I., Shmatkovska, T., Nahirska, K., Nuzhna, O. & Gavryliuk, O. (2020). The study of the relationship between rural population spending on peasant households with the main socioeconomic indicators: a case study of Volyn region, Ukraine. *Scientific Papers: Series "Management, Economic Engineering in Agriculture and rural development"*. 20(2), 217-222.
20. Dziamulych, M., Sarioglo, V., Kotenko, T., Didkivska, O., Korotkova, D., Talakh, T., & Say, V. (2023). Differentiation of income and expenditures of households in the system of formation of the demographic situation in Ukraine. *AD ALTA: Journal of interdisciplinary research*, 13(2), Special Issue XXXV, 111-115.
21. Dziamulych, M., Shmatkovska, T., Gordiichuk, A., Kupyra, M., & Korobchuk, T. (2020). Estimating peasant farms income and the standard of living of a rural population based on multi-factorial econometric modeling: a case study of Ukraine. *Scientific Papers: Series "Management, Economic Engineering in Agriculture and rural development"*, 20(1), 199-206.
22. Khomiuk, N., Bochko, O., Pavlikha, N., Demchuk, A., Stashchuk, O., Shmatkovska, T., & Naumenko, N. (2020). Economic modeling of sustainable rural development under the conditions of decentralization: a case study of Ukraine. *Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development"*, 20(3), 317-332.
23. Logistics Performance Index. (2024). World Bank. Available at: <https://lpi.worldbank.org/international/global> (accessed on 15 June 2024).
24. Rudenko, M., Berezianko, T., Halytsia, I., Dziamulych, M., Kravchenko, O., & Krivorychko, V. (2023). International experience of capitalization of knowledge in terms of innovation economy. *Financial and Credit Activity Problems of Theory and Practice*, 4(51), 508-518.
25. Sarioglo, V., Levkovska, L., Kotenko, T., Horemykina, Y., Didkivska, O., Rozbytskyi, M., Shmatkovska, T. (2024). Dynamics of formation of the labour market and employment of the rural population of Ukraine: a case study of Vinnytsia region. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 24(1), 857-866.
26. Shmatkovska, T., Agres, O., Luchehko, Y., Korobchuk, L., Naumenko, N., Voichuk, M., Dziamulych, M. (2023). Realities and prospects of managing the development of agricultural business in Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 23(4), 777-783.
27. Shmatkovska, T., Derevianko, S., Rogach, S., Shulha, O., Chudovets, V., Artemchuk, L., Begun, S., Khomiuk, N. (2023). Financial, accounting-analytical support and management of economic security in the system of sustainable development. *AD ALTA: Journal of interdisciplinary research*, 13(2), Special Issue XXXVII, 155-159.
28. Shmatkovska, T., Krupka, I., Synenko, V., Sydorenko, R., Mostovenko, N., Talakh, T., Danchevska, I., & Melnyk, N. (2023). Accounting and analytical tools for the formation of subordinated debt of commercial banks in Ukraine. *AD ALTA: Journal of interdisciplinary research*, 13(1), Special Issue XXXIV, 52-55.
29. Shmatkovska, T., Kulinich, T., Dziamulych, M., Rogach, S., Bilochenko, A., Serdiukova, O. (2022). Analysis of investment efficiency in the agricultural sector of Ukraine on the basis of sustainable development. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 22(3), 649-657.
30. Shmatkovska, T., Shubalyi, O., Rogach, S., Kupyra, M., Dobryansky, O., Shved, A., & Voichuk, M. (2023). Simulation of socio-economic security of rural areas in the conditions of sustainable development: a case study of Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 23(1), 709-718.
31. Shmatkovska, T., Volynets, L., Dielini, M., Magopets, O., Kopchykova, I., Kytaichuk, T., Popova, Yu. (2022). Strategic management of the enterprise using the system of strategic management accounting in conditions of sustainable development. *AD ALTA: Journal of interdisciplinary research*, 12(2), Special Issue XXIX, 123-128.
32. Sodoma, R., Lesyk L., Hryshchuk, A., Dubynetska, P., & Shmatkovska, T. (2022). Innovative development of rural territories and agriculture in Ukraine. *Scientific Papers. Series "Management, Economic Engineering in Agriculture and rural development"*, 22(4), 685-696.
33. State Statistics Service of Ukraine. Available at: <https://ukrstat.gov.ua/> (accessed on 15 June 2024).
34. Ukrainian Logistics Alliance. (2024). Available at: <https://ula-online.com> (accessed on 15 June 2024).
35. Verzun, A., Voynycha, L., Fedyk, O., Shulha, O., Lypych, L., Shmatkovska, T., & Herylo, V. (2023). Export potential of agricultural-industrial complex of Ukraine: logistics and development prospects. *Scientific Papers Series Management, Economic Engineering in Agriculture & Rural Development*, 23(4), 915-926.

**Primary Paper Section: A****Secondary Paper Section: AE, AH**

## CRIMINAL ACTIVITY: CONCEPT AND CONTENT

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**Abstract:** The article examines the concept and content of criminal activity from the perspective of criminology. It establishes that criminal activity aligns with the general scientific approach, which defines it as the active influence of a social subject on an object using specific means (methods, techniques, and tools) to achieve a particular goal. Criminal activity is presented not only as an illegal act but also as a social phenomenon and an element of criminal behavior, constituting a separate component.

The insufficient level of comprehensive knowledge about the nature and laws governing the development of criminal activity leads to the inevitable professionalization of criminals, the spread of organized crime, especially in the economic sphere, and, most importantly, negatively affects the effectiveness and quality of countering such illegal manifestations.

**Keywords:** criminal activity; organised crime; professionalisation of criminals; forensic analysis of criminal activity; activity approach in criminology; object of criminology research.

### 1 Introduction

Many authors today emphasize the need to study criminal activity from criminal-legal, criminological, social, psychological, and forensic perspectives. In criminology, the meaning of this concept is often limited to individual acts of crime, such as specific movements, actions, and operations. Historically, confusion has arisen between "crime" and "criminal activity," with some equating a criminal act to criminal activity itself.

Criminal activity can be viewed as a set of actions and movements aimed at realizing or satisfying needs. While crime and criminal activity can be identified, criminal activity represents a broader concept—it is a way of existence and a procedure for life support, not just specific acts aimed at achieving certain criminal goals. Therefore, "criminal activity" is a more comprehensive category than "crime," "criminal behavior," and "mechanism of crime," encompassing these as separate components.

Since the concept, essence, and content of criminal activity in criminology have not yet been definitively resolved and remain subjects of active discussion among scientists, there is an urgent need to explore these issues further.

### 2 Literature Review

The problems of criminal activity in criminology have been examined in the publications of V. P. Bakhin [1; 2; 3; 6], M. V. Danshyn [9], S. F. Denysiuk [10], S. V. Ievdokymenko [13], N. S. Karpov [14; 15; 16; 17], A. V. Khirsin [18; 19], V. S. Kuzmichov [20; 21], V. O. Sakalo [25; 26; 27; 28], M. V. Saltevsyyi [29], V. V. Tishchenko [31; 32; 33; 34; 35], and other scholars.

However, these issues were addressed approximately twenty years ago, under different conditions for combating crime and within the framework of Ukraine's previous criminal procedural

legislation. Therefore, there is a need to revisit these problems in light of contemporary circumstances.

### 3 Materials and Methods

In the research process, a comprehensive approach was employed, incorporating various scientific methods to thoroughly address all aspects of this issue.

In particular, the observation method was used to directly study empirical data on the characteristic features of criminal activity, methods of its implementation, and ways of avoiding responsibility.

The comparison method enabled the examination of different types of criminal activity, identifying their common features and differences, as well as general trends and specific characteristics of each type of crime. This comparison was conducted both nationally and internationally, allowing for the consideration of cultural, social, and economic factors influencing crime.

The method of abstraction was employed to highlight the main characteristics of criminal activity, abstracting them from specific cases. This facilitated the formation of a generalized understanding of criminal activity as a social phenomenon, identifying its main elements and structure.

The abstraction method also aided in formulating theoretical propositions for further research and practical application of the obtained results.

Methods of analysis and synthesis were utilized for a detailed study of the constituent parts of criminal activity and their interactions. The analysis allowed for the examination of individual elements of criminal activity, such as motives, goals, methods of committing crimes, and consequences. Synthesis, in turn, combined these elements into a single system, enabling an understanding of criminal activity as a holistic phenomenon. The use of analysis and synthesis contributed to a deep and comprehensive understanding of criminal activity, its causes, and conditions.

Data sources for the study included scientific publications, statistical reports, and information obtained from observations and surveys. The application of various methods ensured the acquisition of objective and reliable results, reflecting the main aspects of the concept and content of criminal activity.

### 4 Results and Discussion

Interaction with the environment is essential for the functioning of any open, self-governing system. This interaction involves the exchange of energy and matter with the environment, taking various forms but always related to the system's activity, such as energy consumption for adaptation. This concept applies to humans, who are self-regulating systems of the highest complexity. Humans actively influence their environment, adapting to it while responding to internal and external stimuli. The most general concept of human interaction with the surrounding world is termed activity [36]. This concept is inherent in all living beings and self-governing technical systems, from the simplest automatic devices to sophisticated modern computers.

In a broad sense, behavior is a form of activity in higher animals, mentally controlled and regulated. Narrowly defined, behavior consists of human actions reflecting one's attitude towards oneself, society, and others. Scientists rightly note that "the concept of behavior carries a moral and emotional-volitional aspect, which is expressed through the subject's relationship with other people who can give an appropriate assessment in this regard" [35]. Therefore, behavior is considered both a legal and an ethical category, with moral and psychological elements clearly manifested. Behavior can thus be defined as a person's actions in accordance with moral principles and laws.

Some authors argue there is a need for more precise and differentiated definitions of activity in psychological or philosophical literature. Most scientists and philosophers define activity broadly as human behavior. The classics of Marxism often mention: "What is life if it is not activity?" [24]. They clarify that the inner meaning of activity is: "A person makes his life activity the subject of his will and his consciousness. Her life activity is conscious" [24].

Some authors note that "activity" relates to the concept of "human activity" as a species and genus. This means people have one overarching activity and various types of activities. In psychological literature, human behavior (activity) is usually divided into three types: voluntary (purposeful volitional behavior), impulsive, and habitual. It is noted: "Behavior can be inconsistent, jumping from one to another, often unmotivated actions, or relatively consistent, as a certain chain, a system of actions united by a common goal, motives, etc." Moreover, "the material conditions of her life determine human behavior, the type of activity, and significantly depend on the type of nervous system, structure, and orientation of the psyche" [36].

However, psychology considers only purposeful activity consisting of a system of voluntary actions as true activity, that is, specific human influence on the environment, aimed at its change and transformation from the subject's point of view.

A single act cannot always satisfy a person's need for certain goods caused by external or internal stimuli. Consequently, people plan and carry out a series of behavioral acts, or "activity." Systematic activity is guided by a single program and a common motive for all actions involved. Each action aims to achieve its goal, considering past actions and planning future ones. Therefore, human activity can be defined as a system of consciousness subordinated to a single program of actions, determined by a common motive and aimed at changing and transforming both the external world and the individual as the subject of this activity.

In summary, human activity is driven by general motives, leading to a system of consciousness subordinated to a single program of actions intended to change and transform both the external world and the subject of such activity. Although activity is a type of human behavior, it is not the only type, as many behavioral actions occur without specific reasons. Thus, not every activity can be called behavior in its moral and legal (i.e., narrow) sense. The concepts of "activity" and "behavior" are distinct, with neither absorbing the other; they intersect as scientific ideas. Human activities are as varied as their needs and desires.

The category "object" in the philosophical sense is an epistemological characteristic of the aspects of things and phenomena in the objective world (material and ideal) toward which a person's practical and cognitive activity is directed. In specific types of activity, the object of study can be various aspects of objects, phenomena, processes, events, and their relationships [22].

Even at the beginning of the formation of criminology, two primary poles were defined in the object of its research: 1) criminal activity and 2) detection, disclosure, and investigation of crimes. For example, the founder of scientific criminology, H. Gross, wrote at the end of the 19th century: "Criminal science by its nature begins only where criminal law, also by its nature, completes its work: substantive criminal law has as its subject the study of a criminal act and punishment, formal criminal law (process) includes the rules of application of substantive criminal law. But in what way are crimes committed? How can we investigate these methods and reveal them? What were the motives for committing them, and what goals were considered? Neither criminal law nor the process tells us about all this. This is the subject of criminology..." [12]. Gross emphasized the need for criminology to study the components of criminal activity—methods, motives, and goals—which he attributed to the subject of this science.

The central element of activity is a person (subject of activity). Gross identifies the subjects of both types of activity: criminal—the criminal; and criminal investigation—the investigative judge, expert. He notes: "Criminology, as a study of the realities of criminal law, to which the person himself (criminal, witness, expert, and judge) should be considered first of all, reveals to us the essence of criminal acts, their beginning, their constituent parts, their further implementation, and their goals" [12].

Highlighting the two main objects of criminology, Gross outlines them in the prospective plan of his upcoming book: "The first part of the future edition should contain manifestations of crime in an objective relation, with a division into manifestations of general properties: the nature of criminals, their methods, language, signs, simulation, lies, superstitions, etc., and manifestations for certain crimes... [12]. The second part will contain exclusively practical information: about the actions of the judicial investigator, about his preparation for interrogations, about the handling of passports, about weapons, traces, etc., and, in the end, about practical issues that arise during the investigation of individual crimes. If a new edition is needed, the book will appear as a 'criminology system':

1st part: 'Theoretical teaching about manifestations of crimes'.  
2nd part: 'Practical guide for conducting an investigation'" [12].

Gross identifies criminal activities as objects in criminology, with their reflection on the surrounding reality—"manifestations of crimes"—and the activity of investigating crimes—"conducting an investigation."

In the 1920s, European authors and founders of Soviet criminology insisted on separating and studying these two objects in criminology. G. Shneikert wrote that "the subject of proof is both external factors (for example, criminal activity, the method of its execution, its consequences, time and place of action) and internal factors (guilt, motive, and purpose of the act, as well as prudence or error)" [30]. Further, "the entire activity of the interrogating body is focused on capturing these hidden ideas and knowledge from the interrogated, pushing him to awareness, which will not only facilitate further investigative work but also make it more successful" [30].

Subsequent Soviet criminologists also emphasized the need to study criminal activity to improve the theory and practice of investigation [38]. However, they often limited the concept of this activity, reducing it to the commission of a separate criminal act, the behavior of a criminal, or the mechanism of a crime.

In the 1990s, some publications highlighted that if "criminal activity" is to be considered a subject of criminology, then the focus should not be on the "method of crime" but more accurately on the "mechanism of crime," that is, the system of "criminal activity," in which the method of crime is only one component. However, this approach is not entirely successful because it is impossible to equate the "mechanism of crime" with the system of "criminal activity." The former term provides a complete description of how a specific crime is committed, while the latter reveals how crime exists and operates in society at a particular historical stage of its development.

Therefore, in subsequent publications, it was rightly noted that "crime" is not the same as "criminal activity." Proposals have been made to base the forensic study of crime on the general theory of activity, investigating this object by highlighting: 1) motive, purpose, attitude; 2) methods of activity; 3) tools and means of activity; and 4) performance results" [3].

Later, scientists reached an unequivocal conclusion about the need to study criminal activity: "Criminal activity is the first element of a complex object of criminology. Its study is necessary because the investigator, to perform his work successfully, must have special knowledge about the commission of crimes, including the typological features of criminals, the peculiarities of criminal methods, and the characteristic traces they leave" [9].



The initial step in the study of criminal activity involves identifying and analyzing a set of material traces, objects, or elements that define a crime as a phenomenon or event.

Previously, we clarified the concepts of “activity” and “human activity” and revealed their meaning. In philosophy, activity is described as a particular form of a person’s active attitude toward the surrounding world.

However, in addition to the characteristic of “activity,” activity is also described as a way of existence for a person, providing conditions for his vital functions [18; 23]. This emphasizes the positive and valuable nature of activity for society. However, the anti-social essence of criminal activity as a type of human activity is also rightly highlighted: “It is necessary to study the practice of illegal activity, i.e., the activity of persons who purposefully oppose their interests and behavior to the law and the interests of society. This activity is determined by the objective laws of the development of this society, has a specific and diverse content, and proceeds according to its laws of functioning. All aspects of this activity should be investigated, not just its results—committed crimes” [2].

One must agree with this proposal because any actions and operations aimed at ensuring a person’s existence and adapting to the surrounding living conditions belong to the category of human activity. Regardless of how much we divide activity as a way of human existence into various “structural” units by subject, method of activity, and specific subject-performer, this division in a socio-historical perspective can be endless. Ultimately, however, each unit will inherently be an activity if it expresses human existence. Even a parasitic way of life is not idleness, as a person is not idle biologically and socially [4].

Criminals do not contribute anything useful to society, but for their existence, they are forced to act actively. In modern conditions, their activity has reached such a level of interference in the socio-economic conditions of society that it can endanger the foundations of state life. In other words, crime is an objective social phenomenon that the state must address, especially in the context of organized crime. It is evident that crime and criminal activity are formed and determined by the environment; they adapt to these conditions since society does nothing for their existence and development.

Crime forces people to seek and use new ways of livelihood to combat crime. At the same time, criminal activity serves as a “stimulus” for the development of modern society. This requires forecasting the future development of crime and certain forms of criminal activity: “The provisions of forensic prognostication contribute to the anticipatory assessment and understanding of reality, explaining the complex dynamics of certain processes of criminal activity in the future (modification of existing and emergence of new spheres of realization of criminal intentions and objects of encroachment, means of preparing, committing, and concealing crimes) and, accordingly, possible changes in the activity of uncovering, investigating, and preventing these changing criminal manifestations” [39].

All human actions occur under conditions of opposition to the forces of nature and state control. Regarding criminal activity, the state and society purposefully oppose its growth and existence. Consequently, this forces criminals to improve their methods, means, and forms of organizing their criminal activities. Criminals often stay ahead of law enforcement agencies in terms of the means they use. Law enforcement agencies frequently face a lack of resources, whereas criminals usually have everything they need to carry out their activities [3].

Authors of various publications identify different elements of activity, differing in name and number [23; 37]. These differences relate to the approaches and goals of the analysis rather than differences in understanding this scientific category. We believe that the most critical elements of criminal activity are the following: goal, object, subject, means, and process.

In the most general sense, criminal activity aims to ensure the conditions of existence for those engaged in it. The goals for which a person engages in criminal activities can vary, including enrichment, revenge, the desire for fame, social protest, etc.

The object of activity is what it directly aims at in achieving its goal. Activity always targets objective reality (nature and social environment) [18; 37]. Depending on its type, the object of activity can be the natural environment, products of previous activities, a system of social relations, people, etc. The objects of criminal activity are material objects, people, and legal relations, as crime always aims at transforming material objects (destruction, alteration), influencing people (from elementary deception to murder), or changing the nature of legal relations (deprivation or transfer of property rights, etc.). Thus, the object of criminal activity corresponds to a particular component of human activity.

It is well-known that without a subject, there is no activity. The subject of criminal activity acts like any other person, but his activity is markedly different. First, it is distinguished by the clear antisocial orientation of the person and his actions. Second, this orientation results in the illegal and often covert (hidden) nature of his actions.

A participant (subject) of criminal activity must have specific knowledge, skills, and sometimes character traits that enable him to act violently and defiantly to commit a particular crime. In their criminal activities, as in any other type of activity, criminals use the accumulated experience of their predecessors and their own experience, which allows them to achieve their goals, often remain unpunished, and improve their methods. Individual experience, reflected in the ways of committing a crime, is essential for combating crime because it enables perpetrators to commit new criminal offenses based on the characteristics of previously committed crimes.

Each type of activity has its means and methods. The goals of criminal activity, conditions for its implementation, types of crimes, and other factors determine these means. The process of implementing the activity is always correlated with its purpose, and the means serve to fulfill the purpose and the functions provided for by the purpose. Accordingly, the methods of committing crimes are divided into two main groups. The first group includes material objects designed to achieve a specific impact on an object (e.g., weapons, tools, transport), while the second group includes psychological or other actions aimed at achieving a goal without using direct tools (e.g., threats, suggestions, deception). Such means of criminal activity are often combined when committing crimes, such as forgery of banknotes, documents, smuggling, etc. [3; 29].

In a broader sense, the means of the labor process include all the material conditions necessary for such a process. In this context, methods of criminal activity include both the commission of crimes and the organization of criminal groups. The method of committing crimes combines all the necessary means of achieving the desired result, including behavioral acts.

Two main factors determine the forms of an organized criminal group. The first is the quantitative and qualitative composition of the group, necessary for implementing the illegal plan. For example, when a particular crime cannot be committed by a lone criminal, or long-term illegal activity requires the joint efforts of several people, specific accomplices (e.g., corrupt officials) may be needed to commit crimes. Consequently, criminal groups, especially organized crime communities, are built and operate using the principles of intelligence agencies to ensure that they remain undetected. In the event of the “failure” of any part (usually the direct perpetrators), they aim to incur minimal losses and quickly restore the previous structure of the criminal organization [3].

The primary distinction between various types of activity lies in the achievement of the desired result. Scientists assert that the entire process of criminal activity is directed towards realizing the set goal and obtaining the intended outcome. This result is

the material embodiment of the perpetrator's interests, which motivated the commission of the crime: physical harm, property damage, and moral injury. Additionally, the result can be seen as the satisfaction of the criminal's ethical and physical needs, desires, passions, and aspirations [10].

The criminal process is both specific and unique. Criminal activity encompasses not only a particular criminal act but also a broader spectrum of actions aimed at sustaining the criminal and his associates, and facilitating ongoing illegal operations (e.g., forming a criminal group, training members, organizing intelligence and counter-intelligence activities, specialization, and distribution of spheres of influence). Such conditions also involve the preparation and execution of crimes (e.g., specific illegal acts), and efforts to conceal the identities of criminals [7; 17].

Thus, criminal activity should be regarded as a deliberate implementation of actions designed to ensure the survival of the perpetrator and the criminal enterprise as a whole, often manifesting as isolated, random, or emotionally driven acts. Such crimes represent components or segments of a broader criminal activity. While criminal activity predominantly pertains to destructive human actions, it may also encompass certain aspects of creation (e.g., in the shadow economy, drug trade, gambling industry, etc.).

Some scholars argue that destructive activity can be distinguished from the goals and tasks of socially beneficial work and, in contrast, may pose a threat to societal existence, which characterizes modern crime. It is correctly emphasized that "criminal activity has escalated to a level of interference in the socio-economic fabric of society that threatens the foundations of state life. In other words, criminal activity is not only an objective social factor but also a phenomenon with which, especially in the context of organized crime, the state must contend" [14].

In contemporary contexts, crime is increasingly professional. Professionalism in criminal activity can be conceptualized in two ways: firstly, as a high level of execution in criminal operations, which ensures the achievement of nearly all intended objectives; and secondly, as a mode of existence driven by the results of such illegal activities.

Countering the detection and cessation of criminal activity is a specific aspect of the criminal process. Historically, this has always been a characteristic of criminal behavior. However, unlike earlier periods when criminal actions often involved isolated incidents, modern criminals focus on avoiding detection and exposure. Concealment and destruction of evidence were central to the preparation, execution, and aftermath of criminal activities. Today, crime operates on an organized level, manifesting in systematic criminal enterprises rather than isolated acts. Criminals now actively ensure their safety throughout their "labor activity."

Modern criminals not only destroy evidence but also "buy off" or "clean up" witnesses, corrupt law enforcement officials, lobby their interests within state institutions, and exploit international networks for illegal activities. The corruption of public officials, in particular, allows criminals to access critical information for their illegal operations and to anticipate and counteract law enforcement strategies. This represents a comprehensive approach to sustaining criminal enterprises, rather than isolated criminal acts.

## 5 Conclusion

Criminal activity aligns fully with the definition of activity as the active influence exerted by a social subject on an object using specific means (methods, techniques, and tools) to achieve a particular goal. Addressing crime effectively necessitates examining criminal activity not merely as isolated acts but as a broader social phenomenon and an integral element of criminal operations. This comprehensive analysis is crucial for developing specific and effective measures to combat crime.

Neglecting the study of the nature and dynamics of criminal activity can lead to the professionalization of criminals, the emergence and expansion of organized crime, particularly within the economic sector, and, most critically, a significant decline in the effectiveness and quality of crime-fighting efforts.

## Literature:

1. Bakhin, V. P. (2002). *Criminalistics. Problems and opinions (1962-2002)*. Kyiv. 268 p.
2. Bakhin, V. P. (1991). *Investigative practice: problems of study and improvement*: abstract of the dissertation of the Doctor of Law Sciences. Kyiv, 37 p.
3. Bakhin, V. P., Gora, I. V., & Tsymbal, P. V. (2002). *Criminalistics*. Irpin: Academy of the State Tax Service of Ukraine. Part 1. 356 p.
4. Bakhin, V. P., & Karpov, N. S. (1999). *Criminal activity as an object of criminal investigation*. Kyiv. 22 p.
5. Bakhin, V. P., Karpov, N. S., & Dzo (Sakalo), V.A. (1999). Tactics of criminal activity. *Law and Life*, 1999, 12, 24-25.
6. Bakhin, V. P., Kuzmychev, V. S., Karpov, N. S., & Ievdokymenko, S. V. (2000). Criminal activity: essence and principles. *Bulletin of the Luhansk Institute of Internal Affairs of the Ministry of Internal Affairs of Ukraine*, 4, 100-110.
7. Bakhin, V. P., Kuzmychev, V. S., & Sadchenko, O.O. (1996). Study of criminal activity with the aim of improving forensic methods and tools. *Current issues of crime investigation in modern conditions: tactics, methods, information support*, 206-215
8. Chorny, A. M., & Khirsin, A. V. (2002). Problems of forensic analysis of organized criminal activity combined with the commission of murders. *Customs business*, 2, 100-105.
9. Danshyn, M. V. (2015). Criminal activity as an object of knowledge in criminology and an integrated factor of its development. *Bulletin of Kharkiv National University named after V. N. Karazin. "Law" series*, 19, 148-153.
10. Denysiuk, S. F. (2011). Criminal activity: concept, structure and characteristics of its elements. *Law and security*, 1(38), 135-140.
11. Dzo (Sakalo), V. O. (2000). Tactics of a criminal. *Scientific Bulletin of the National Academy of Internal Affairs of Ukraine*, 2, 183-186.
12. Gross, H. (1908). Guide for forensic investigators as a system of criminalistics. St. Petersburg: M. Markushev Printing House. 1040 p.
13. Ievdokymenko, S. V. (2002). *Criminal activity: essence and forensic aspects of combating it*: abstract of the dissertation of the PhD of Law Sciences. Kyiv. 17 p.
14. Karpov, N. S. (2004). *Criminal activity*. Kyiv: Serhiy Semenko publishing house. 310 p.
15. Karpov, N. S. (2007). *Forensic principles of studying criminal activity*. Kyiv: Kyiv National University of Internal Affairs. 522 p.
16. Karpov, N. S. (2007). *Forensic principles of studying criminal activity*: abstract of the dissertation of the Doctor of Law Sciences. Kyiv. 32 p.
17. Karpov, N. S., & Ievdokymenko, S. V. (2001). *Criminal activity*. Kyiv: National Academy of Internal Affairs. 59 p.
18. Khirsin, A. V. (2006). Forensic model of criminal activity: concept, structure and ways of construction. *Actual problems of legal sciences in the research of scientists*, 51, 18-23.
19. Khirsin, A. V. (2006). *Forensic support for the investigation of self-interested and violent organized criminal activity*: abstract of the dissertation of the PhD of Law Sciences. Kyiv. 19 p.
20. Kuzmichov V., & Ievdokymenko, S. (2000). New types of criminal activity: their analysis. *Law of Ukraine*, 10, 110-112.
21. Kuzmichov, V., & Moskvin, Yu. (1999). Forensic study of criminal activity. *Law of Ukraine*, 5, 65-67.
22. Lysychenko, V. K. (1974). *Criminal investigation of documents (legal and methodological problems)*: abstract of the dissertation of the Doctor of Law Sciences. Kyiv. 64 p.
23. Lytvyn, V. M., Gusiev, V. I., & Sliusarenko, A. G. (2002). *Historical science: terminological and conceptual guide*. Kyiv: Higher School. 430 p.
24. Marx, K., & Engels, F. (1973). *From early works*. Kyiv: Publishing House of Political Literature of Ukraine. 596 p.

25. Sakalo, V. O. (2001). Criminal activity as a social phenomenon. *Bulletin of the Lviv Institute of Internal Affairs*, 2, 206-210.
26. Sakalo, V. O. (2002). *Tactics of criminal activity*: abstract of the dissertation of the PhD of Law Sciences. Kyiv. 16 p.
27. Sakalo, V. O. (2004). *Tactics of criminal activity: concept and essence*. Kyiv: Knowledge of Ukraine. 80 p.
28. Sakalo, V. O. (2001). Tactics of criminals when resisting the investigation. *Theory and practice of forensic support for the disclosure and investigation of crimes in modern conditions*, 67-68.
29. Saltevsnyi, M. V. (1999). *Criminalistics*. Kharkiv: Osnova. Part 1. 416 p.
30. Shneikert, G. (1923). *The secret of the criminal and the way to its disclosure (to the doctrine of forensic evidence)*. Moscow: Law and Life Publishing House. 63 p.
31. Tishchenko, V. V. (2003). *Conceptual foundations of the investigation of selfish and violent crimes*: abstract of the dissertation of the Doctor of Law Sciences. Kharkiv. 34 p.
32. Tishchenko, V. V. (2006). Criminal activity as an object of criminology. *Actual problems of the state and law*, 27, 38-44.
33. Tishchenko, V. V. (1992). Criminal aspects of studying criminal activity. *Problems of the state and rights of Ukraine*, 103-109.
34. Tishchenko, V. V. (2001). Principles of building models of the mechanism of selfish and violent criminal activity. *Actual problems of the state and law*, 11, 492-496.
35. Tishchenko, V. V. (2007). *Theoretical and practical foundations of crime investigation methodology*. Odesa: Phoenix. 260 p.
36. Voitko, V. I. (1982). *Psychological dictionary*. Kyiv: Higher School. 215 p.
37. Zelinskyi, A. F., & Korzhanskyi, M. J. (1998). *Profitable criminal activity*. Kyiv: Geneza. 144 p.
38. Zhordaniya, I. Sh. (1971). *Concept, classification and legal significance of methods of committing crimes*: abstract of the dissertation of the PhD of Law Sciences. Tbilisi. 17 p.
39. Zhuravel, V. A. (1999). *Theory and methodology of forensic forecasting*: abstract of the dissertation of the Doctor of Law Sciences. Kharkiv. 36 p.

**Primary Paper Section: A**

**Secondary Paper Section: AG**

## **F MEDICAL SCIENCES**

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| FA | CARDIOVASCULAR DISEASES INCLUDING CARDIO-SURGERY         |
| FB | ENDOCRINOLOGY, DIABETOLOGY, METABOLISM, NUTRITION        |
| FC | PNEUMOLOGY   |
| FD | ONCOLOGY AND HAEMATOLOGY                                 |
| FE | OTHER FIELDS OF INTERNAL MEDICINE                        |
| FF | ENT (IE. EAR, NOSE, THROAT), OPHTHALMOLOGY, DENTISTRY    |
| FG | PAEDIATRICS  |
| FH | NEUROLOGY, NEURO-SURGERY, NUERO-SCIENCES                 |
| FI | TRAUMATOLOGY AND ORTHOPAEDICS                            |
| FJ | SURGERY INCLUDING TRANSPLANTOLOGY                        |
| FK | GYNAECOLOGY AND OBSTETRICS                               |
| FL | PSYCHIATRY, SEXOLOGY                                     |
| FM | HYGIENE  |
| FN | EPIDEMIOLOGY, INFECTION DISEASES AND CLINICAL IMMUNOLOGY |
| FO | DERMATOLOGY AND VENEREOLOGY                              |
| FP | OTHER MEDICAL FIELDS                                     |
| FQ | PUBLIC HEALTH SYSTEM, SOCIAL MEDICINE                    |
| FR | PHARMACOLOGY AND APOTHECARY CHEMISTRY                    |
| FS | MEDICAL FACILITIES, APPARATUS AND EQUIPMENT              |

## ADVANTAGES OF USING BAST FIBER RAW MATERIALS IN ORTHOPEDIC PILLOWS

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**Abstract:** This article analyzes the possibility of using oil flax and technical hemp fibers as fibrous fillers in orthopedic pillows. The primary quality properties of these fibers were determined and compared with various types of fillers most commonly used in orthopedic products. A convenient pillow shape was developed that would correspond to the anthropometric parameters of the human body. Thanks to its bone-like shape, this pillow can be universal, suitable for different parts of the human body. Additionally, fabrics for pillowcases were analyzed, and material options were proposed that would improve the functional properties of the orthopedic product. Experimental samples of orthopedic pillows were also developed and tested for wear resistance, ease of use, dimensional stability, and healing properties for patients undergoing rehabilitation after injuries and illnesses. These products performed excellently during use. According to doctors and users, they are comfortable, maintain their shape over time, are durable, and effective in treating bedsores and healing wounds. Numerous studies have shown that ordinary down products and pillows with low-quality filling often cause spinal curvature, leading to pinched nerves, headaches, and other unpleasant symptoms. An orthopedic pillow allows for a full and healthy rest. These products conform to the curves of the human body during rest, sleep, travel, and treatment, and subsequently return to their original state. This effect allows for the even distribution of load on the spine, preventing posture distortions.

**Keywords:** oil flax fibers; hemp fibers; properties; orthopedic pillow; pillowcase; anthropometric shape; therapeutic effect.

### 1 Introduction

An orthopedic pillow is not only a means for comfortable rest but also an effective aid in medical institutions. Orthopedic pillows help in the fight against bedsores, work as a means for the rehabilitation of patients after limb amputation, and serve as a preventive measure, providing comfort and rest during pregnancy. Numerous studies have shown that ordinary down products and pillows with low-quality fillers often cause spinal curvature and, as a result, pinched nerves, headaches, and other unpleasant painful manifestations [9]. An orthopedic pillow allows for a full and healthy rest. Such products conform to the curves of the human body during rest, sleep, travel, and treatment, after which they return to their original state. This effect allows for an even distribution of the load on the spine, preventing the development of posture curvatures.

There are many different materials from which orthopedic pillows can be made, but in recent years, consumers have preferred natural products. Bast fiber raw materials (flax, hemp) have already proven themselves as quality and environmentally friendly materials for making pillowcases for pillows and blankets. However, this type of raw material is used much less frequently as a fibrous filler. To use oil flax and hemp fibers after the decortication process as a filler for pillows, their properties were studied, which will provide comfortable, healthy sleep, quality treatment, and rehabilitation for their owner.

Great attention during the manufacture of orthopedic pillows is paid to their shape and production technology. Only by correlating anthropometric properties, filler quality, and the production process of these products can a therapeutic effect and comfortable feeling be achieved.

The relevance of this work lies in the fact that the market for orthopedic products is oversaturated with low-quality products made from synthetic materials that can cause irreparable harm to human health. The use of natural, environmentally friendly fillers, which, thanks to their quality properties, will make the orthopedic product effective in the treatment and prevention of

various diseases, combined with a universal shape, is a relevant scientific endeavor today. Thus, to obtain a high-quality product with orthopedic and therapeutic effects, all components of production must be taken into account: filler, top material, and manufacturing technology.

### 2 Literature review

Works on the study of the properties of bast fiber raw materials, namely flax and hemp fibers, are carried out constantly. Many foreign and domestic scientists have devoted their scientific works to the problem of studying the influence of physical and mechanical characteristics of hemp and flax fibers on finished products: Didukh and Yaheliuk (2022) [7], Boiko (2022) [2], Berezovsky (2020) [1], Velmurugan (2022) [15], Grégoire (2021) [8], Baretc, Ouagne, and Barthod-Malat (2017) [12]. The studied type of raw material is used in various industries: food, textile, pulp and paper, automotive and aircraft construction, as composites, non-woven materials, geotextiles, etc. As a fibrous filler, technical hemp and oil flax fibers are also used in pillows, mattresses, and blankets, but this material has not yet been used in orthopedic products.

Given the high demand for orthopedic products at present in Ukraine, conducting research aimed at determining the suitability of bast fiber raw materials as a fibrous filler in orthopedic pillows is an urgent and timely task.

### 3 Materials and methods

The work on developing a multifunctional, effective, durable, high-quality orthopedic pillow involves several stages. The first stage is to determine the possibility of using oil flax and technical hemp fibers as fibrous fillers. The second stage is to create a universal shape for an orthopedic product that would be multifunctional and suitable for different parts of the human body. Finally, it is necessary to select a pillowcase fabric that would not suppress the properties of the filler but instead make the product aesthetic, ecological, practical, safe, and of high quality.

The main criterion when choosing orthopedic products with different fillers is the raw material composition of both the top material (cover) and the filler, as the quality of the finished product, as well as its safety, depends on them. Therefore, the conducted research was based primarily on identifying the quality properties of the components of the bast fiber filler, which will improve the therapeutic, functional, ecological, and ergonomic properties of the product and increase its shelf life.

In the laboratories of Kherson National Technical University and Khmelnytskyi National University, studies of the components of the bast fiber filler—fiber mass of oil flax and technical hemp—were conducted to use these fibers as fillers in orthopedic pillows for various functional purposes. Literature sources indicate that these fibers possess many quality properties. One of the biggest advantages of hemp and flax fiber as fibrous fillers is their ecological nature. Flax and hemp crops are among the most resistant plants known to mankind and are grown without the use of pesticides and chemical fertilizers. This makes products using them safe for health and the environment [2].

These fibers have excellent heat and moisture retention properties. Hemp and oil flax fibers have a unique structure that allows them to retain heat and simultaneously conduct air well. They retain heat in cold weather and allow the skin to breathe and not overheat in summer [2].

Additionally, oil flax and hemp fibers have natural antibacterial properties that help combat the development of bacteria and fungi. These properties of the fibers aid in the fight against bedsores and promote wound healing.

Another unique property of the studied bast fiber raw material is moisture regulation, i.e., the ability to absorb and evaporate

moisture. This helps regulate humidity levels in bed and ensures a comfortable rest. Additionally, they prevent the formation of unpleasant odors and mold.

Through the cottonization of hemp and flax fiber, a soft, pleasant-to-touch filler is obtained, which is able to maintain the shape of the pillow due to its density. Such products have a pleasant texture to touch and provide softness and comfort during sleep and rest. They adapt well to the body shape and distribute pressure, helping to reduce muscle tension and improve the body's condition.

These fibers have good natural thermoregulation. Pillows with such filler will help maintain the body's natural thermoregulation, allowing a comfortable temperature regime throughout the entire time of use.

Regarding the shelf life of products with such fibrous filler, durability and stability are ensured for several years. Orthopedic pillows with this type of filler will be distinguished by high strength and resistance to wear. They can serve a person for many years without losing quality and shape. This makes this type of product ideal for those who value durability and economy.

Significant savings in the technological process of manufacturing fibrous filler can be obtained by removing the bleaching and dyeing operations, as hemp and flax fibers as a filler may not go through these stages. They have their own natural aesthetic appearance and style. If pillowcases made from this type of raw material are also used in sleeping products, they will have a natural, organic look, adding a special charm to the bedroom. Bast fiber filler for orthopedic pillows is a natural, ecological, and healthy component for products that will provide comfort during treatment and rest.

#### 4 Results

To determine the special advantages of the studied type of filler for orthopedic pillows, a comparative analysis of the most common fillers for orthopedic pillows was conducted. There are many fillers for orthopedic pillows, including synthetic, artificial, and natural fibers, as well as buckwheat hulls, millet, rice, orthopedic foam, latex, and gels with a cooling effect [13]. Each of these fillers has both advantages and disadvantages. For the comparative analysis, the following fibrous fillers were selected: polyester fiber, down/feather, buckwheat hulls, oil flax fibers, and technical hemp fibers. Table 1 presents a comparative analysis of the selected fibrous fillers based on the following properties: hygroscopicity, air permeability, antibacterial properties, wear resistance, filler strength, product height without load, and product height under load. All studies of filler properties were conducted according to standard methodology [4; 5; 3].

Table 1: Comparative analysis of fillers for orthopedic pillows

| No | Indicator  | Down /Feather (92/8%) | Polyester fiber | Buck-wheat hulls | Oil flax fibers | Hemp fibers |
|----|--|-----------------------|-----------------|------------------|-----------------|-------------|
| 1. | Filler strength, cm <sup>3</sup> /g                      | 0.30                  | 0.24-0.27       | 0.25-0.28        | 0.30-0.31       | 0.32        |
| 2. | Product height without load, cm                          | 19                    | 17-18           | 10               | 15              | 15          |
| 3. | Product height under load, cm                            | 10-11                 | 8-9             | 7-8              | 14.5            | 14          |
| 4. | Air permeability, dm <sup>3</sup> /m <sup>2</sup> s ≥ 20 | 15.3                  | 20.2            | 25.0             | 31.2            | 33.0        |
| 5. | Hygroscopicity, % ≥ 6.0                                  | 6.0                   | 7.3-7.5         | 7.5-8.0          | 11.0-12.0       | 15.0        |
| 6. | Antibacterial properties                                 | absent                | absent          | present          | present         | present     |
| 7. | Wear resistance, years                                   | 1-2                   | 2-3             | 2-4              | 7-9             | 7-9         |

Analyzing the data, we can conclude that fibrous fillers from oil flax fibers and technical hemp have significant advantages over

other fillers used in orthopedic products. The table did not include synthetic fillers like holofiber and sintepon due to their hygroscopicity being equal to 1%. As seen from the table, natural fillers have excellent air permeability and hygroscopicity, with the highest indicators observed in oil flax fibers and technical hemp fibers. Due to the morphological structure of oil flax and technical hemp fibers, which contain numerous air channels, these fibers provide high air permeability and ventilation. Additionally, the shelf life of products with these fillers is the longest for flax and hemp fibers, which is attributed to their properties.

Another notable advantage is the density of the fibers, which enhances the functional properties of the product. During use, the pillow will better retain its shape, resist lumping, remain comfortable, and maintain its original appearance. Thus, we can conclude that this orthopedic product will not only be ecological, aesthetic, and functional, but also hypoallergenic and long-lasting.

One of the problems with pillows containing natural fillers is the potential development of microorganisms and dust mites during prolonged and improper use. This can lead to various skin rashes, redness, or even serious issues like bronchial asthma [16]. Given the natural qualities of oil flax and technical hemp fibers, dust mites and pathogenic microorganisms, bacteria, and fungi are unlikely to develop in them. Such pillows are an excellent option for individuals suffering from allergic diseases.

The next stage of work focused on developing an orthopedic pillow shape that would be universally suitable for different parts of the human body. Orthopedic pillows have a special shape that conforms to the body's curves and provides optimal support for the head and neck during rest.

The orthopedic product is designed to address and improve the problems described above. The anatomy of the human body requires support for the head and cervical vertebrae in a horizontal position for comfortable rest. Elevated support helps prevent pain and spinal curvature. Modern orthopedic pillows often feature an increased roller along one of the long (horizontal) sides, the size of which must be selected individually based on the width of the person's shoulder. It is also essential to select the required curve individually to ensure the anatomical pillow supports the head well and prevents it from rolling during rest. Furthermore, the orthopedic effect should contribute to:

- Correct positioning of the neck and spine according to physiology;
- Normal blood circulation of the vessels in the cervical region;
- Absence of tension in the muscles of the upper spine;
- Prevention of varicose diseases;
- Rehabilitation after amputation or limb fractures;
- Prevention of bedsores;
- Comfort during prolonged sitting and rest.

Considering the above and the anatomical forms of humans, a universal pillow shape was developed, resembling a "bone." The proportions of this pillow were calculated for a person of standard size. The pillow has three facets with rounded edges and a curve in the middle. Additionally, for the convenience of use by people with disabilities, special handles were developed on the sides to make it easy to pull or adjust the product. A graphic image and pattern of the pillow according to the developed template are presented in Figure 1 a, b.



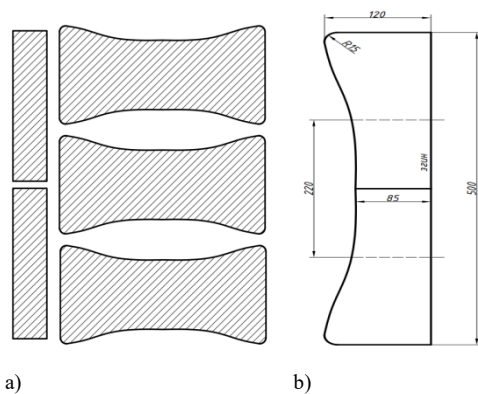


Figure 1. a) graphic image of the orthopedic pillow pattern; b) orthopedic pillow cut.

As seen in Figure 1, the cut of this orthopedic product consists of five parts: three main parts of the bone-shaped pillow and two handle-grips. This product was assembled with ordinary seams and ironing. The seams were not processed, and seam allowances were 1 cm. The quilting method, often used for making orthopedic products with artificial or wool fibers, was not employed in this case. The main disadvantage of the quilting method is that the filler can form voids or lumps during use. Therefore, this method was not used for the manufacture of this product. Graphic images of the seams used for sewing the orthopedic product are presented in Figure 2.

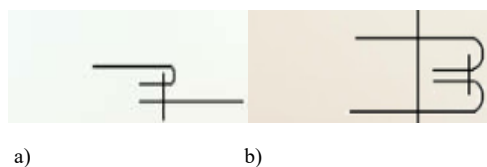


Figure 2. Graphic image of seams used for the orthopedic pillow: a) seam with ironing for joining the main parts of the product, b) double seam for joining the handle-grips of the product.

The use of seams depicted in Figure 2 ensures the strength of the orthopedic product's seams. During use, these seams will not cause discomfort, and the product's aesthetics will be preserved. The threads used for joining the parts are 100% cotton No. 90, compliant with the European standard EN 12590:1999 and certified with the Oeko-Tex® Standard 100 [11].

For this product, a pillowcase made of thin calico can be used, allowing for easy cover changes and ironing. To facilitate this, a hidden zipper will be sewn into one of the facets of the bone-shaped pillow. The zipper will extend the length of the concave facet, from one handle-grip to the other. This design feature will simplify cover changes and enhance the operational and aesthetic properties of the orthopedic pillow.

The fabric of the cover plays a crucial role in ensuring that the product has an aesthetic shape, is pleasant to the touch, does not cause allergic reactions, is durable, and maintains quality properties. The cover material should be strong, abrasion-resistant, hygienic, and comfortable. Various fabrics are used in the production of orthopedic pillows, including natural, artificial, and synthetic options. Commonly used fabrics include different types of cotton, linen, viscose, velour, microfiber, and polyester.

To understand the quality properties of cover fabrics for orthopedic pillows, the most frequently used fabrics were evaluated based on indicators such as relative total thermal resistance, hygroscopicity, air permeability, and strength [14]. The fabrics studied included cotton, linen, polyester, and bamboo. Experiments were conducted following standard methodologies [6; 5].

Table 2: Comparative analysis of covers for orthopedic pillows

| No. | Indicator  | Cotton | Linen | Polyester | Bamboo fabric |
|-----|--|--------|-------|-----------|---------------|
| 1.  | Air permeability, $\text{dm}^3/\text{m}^2\text{s}$                               | 25.0   | 29.8  | 31.7      | 27.0          |
| 2.  | Hygroscopicity, %  | 15.0   | 18.2  | 0.4       | 20.1          |
| 3.  | Relative total thermal resistance, $\text{m}^2 \text{ } ^\circ\text{C}/\text{W}$ | 0.316  | 0.380 | 0.278     | 0.312         |
| 4.  | Surface density, $\text{g}/\text{m}^2$   | 511    | 230   | 536       | 535           |

The analysis of the tabular data indicates that natural fiber fabrics exhibit superior properties for pillow covers. Cotton fabrics are soft to the touch but have less durability compared to linen and polyester fabrics. Linen fabrics, though durable, have a coarser texture that may cause discomfort. Thermal resistance is comparable across all studied fabrics. Polyester fabrics have significantly lower hygroscopicity than natural fibers, which could adversely affect the therapeutic efficacy of the orthopedic product.

Fabrics used for pillow covers must have adequate wear resistance [10], primarily ensured by abrasion resistance. Literature suggests that not only the fiber composition but also the fabric structure—including the surface layer properties of the yarn, bond strength among structural elements, and their elastic properties—affects abrasion resistance. There is some debate about the impact of weave type on abrasion resistance. While some research suggests that plain weave fabrics are most resistant to abrasion, other studies indicate that they are less resistant. Consequently, the fabric weave was not a primary focus in the selection of materials for the orthopedic pillow covers.

Thus, natural fabrics such as linen and various types of cotton (e.g., calico, poplin, muslin, satin) are recommended for orthopedic pillow covers. These fabrics should possess high strength, density, and wear resistance due to their weave and repeat patterns.

Following the conducted research, experimental orthopedic pillows were developed for use in medical settings for the rehabilitation of patients with limb and full-body injuries. After a month of use, it was observed that the pillow's shape makes it versatile for supporting various body parts. The orthopedic pillow can be used under the head, neck, arms, or legs, or for lying sideways, making it multifunctional. Additionally, the use of oil flax fibers and hemp fibers as fillers has been shown to facilitate rapid wound healing, reduce the risk of bedsores, and stabilize the patient's condition. Examples of these orthopedic pillows with oil flax and technical hemp fillers are illustrated in Figure 3.



Figure 3. Example of the use of orthopedic pillows in medicine

## 5 Conclusion

Based on the results of the conducted research, the key properties of fibrous fillers made from oil flax and technical hemp fibers have been identified. Comparative analysis of these bast fibers with other common fillers, such as polyester fiber, down/feather, and buckwheat hulls, reveals that the oil flax and hemp fibers offer notable advantages. These fibers exhibit high air permeability and hygroscopicity, attributed to their morphological structure which includes numerous air channels. This structure enhances air flow and ventilation. Additionally, the longevity of products using these fillers is superior, a reflection of their intrinsic properties. The density of these fibers also contributes to better functional characteristics of the product.



ensuring that the pillow maintains its shape, resists lump formation, and remains comfortable and aesthetically pleasing over time. Consequently, these orthopedic products are not only eco-friendly, aesthetically pleasing, and functional but also durable and non-allergenic.

A universal shape for the orthopedic pillow has been developed, designed to accommodate various parts of the body. This pillow features a bone-like shape with three facets, rounded edges, and a central curve. To enhance usability, handles are incorporated on the sides of the pillow, facilitating ease of use for individuals with limited mobility. The manufacturing process includes using seams with ironing for joining the main parts and a double seam for the handle parts.

Various fabrics used for pillow covers were analyzed, including cotton, linen, polyester, and bamboo fabric. The analysis showed that while cotton fabrics are soft, they are less durable compared to linen and polyester. Linen fabrics, though durable, are coarser and may be uncomfortable. Thermal resistance was comparable across all fabrics, but polyester exhibited lower hygroscopicity, which could adversely affect the pillow's therapeutic properties. It is recommended to use natural fabrics for pillow covers due to their strength, density, and wear resistance, as well as their natural comfort and safety attributes.

Experimental samples of orthopedic pillows were tested for wear resistance, ease of use, shape stability, and therapeutic efficacy for patients in rehabilitation. The results indicated that these pillows performed excellently, maintaining their shape over time, proving durable, and effectively aiding in the treatment of bedsores and wound healing.

The pillow can be equipped with a thin calico pillowcase to facilitate easy cover changes or ironing. A hidden zipper sewn into one of the facets of the bone-shaped pillow will enhance both its operational and aesthetic properties.

In summary, the developed orthopedic pillows offer numerous advantages over existing products. They serve as versatile orthopedic tools suitable for various body parts and functional purposes.

#### Literature:

1. Berezovskyi, Y., Kuzmina, T., & Mazievich, T. (2020). Influence of the oil flax eco-brand on the development of safe production: *Scientific Horizons*, 23(12), 65-73.
2. Boiko, G.A., Mandra, O.M., & Tikhosova, A.O. (2020). Unique consumer properties of industrial hemp. In *The 6th International scientific and practical conference "Dynamics of the development of world science"* (pp. 382-386). Perfect Publishing, Vancouver, Canada.
3. DSTU 4015:2001. (2001). Flax beaten. Specifications.
4. DSTU 4609:2006. (2006). Feather and down raw materials. Technical conditions.
5. DSTU EN 12130:2010. (2010). Feather and down. Method for determining the filling volume.
6. DSTU EN 13186:2010. (2010). Bedding filled with feather and down. Technical conditions.
7. Didukh, V., Yaheliuk, S., Artyukh, T., Albota, D., & Holiy, O. (2022). Decrease of elastic properties of oleaginous flax residues by decortication: *INMATEH - Agricultural Engineering*, 67(2), 285-292. <https://doi.org/10.35633/inmateh-67-29>
8. Marie Grégoire, Mahadev Bar, Emmanuel De Luycker, Salvatore Musio, Stefano Amaducci, Xavier Gabrion, & Vincent Placet (2021). Comparing flax and hemp fibres yield and mechanical properties after scutching/hackling processing: *Industrial Crops and Products*, 172(11), 40-45. <https://doi.org/10.1016/j.indcrop.2021.114045>
9. Mykhailova, G.M. (2020). Formation of quality and safety of bedding products with volumetric fillers: *Abstract of doctoral dissertation in technical sciences: spec. 05.18.08*. Kyiv, 44 p.
10. Mykhailova, G., Osiyevska, V., Galko, S., & Ozymok, G. (2019). Research on quality and safety of filler materials and covers for sleeping pillows. *Technical sciences and technologies*, 1(15), 214-226.
11. Oeko-Tex Standard 100. (2024). URL: <https://www.oeko-tex.com>
12. Ouagne, P., Barthod-Malat, B., Evon, P., Labonne, L., & Placet, V. (2017). Fibre extraction from oleaginous flax for technical textile applications: influence of pre-processing parameters on fibre extraction yield, size distribution and mechanical properties: *Procedia Engineering*, 200, 213-220.
13. Pillow filler - overview and properties, advantages and disadvantages. (2024). URL: <http://radka.in.ua/dim/napovnuvac-h-dlia-podyshok-ogliad-za.html>
14. Pushkar, G.O., Galyk, I.S., & Semak, B.D. (2020). Investigation of the influence of textile materials processing on the formation of their quality and safety. *Bulletin of LTEU. Technical sciences*, 23, 18-24.
15. Velmurugan, G., Shaafi, T., Bhagavathi, M.S., & Siva Shankar, V. (2022). Evaluate the tensile, flexural and impact strength of hemp and flax based hybrid composites under cryogenic environment: *Materials Today: Proceedings*, 50(5), 1326-1332. <https://doi.org/10.1016/j.matpr.2022.08.059>
16. Which pillow filler is the best - characteristics of the most popular materials. (2024). URL: <http://besida.in.ua/yakyj-napovnyuvach-dlya-podushok-najkrashhyj-harakterystyky-najbilsh-populyarnyh-materialiv.html>

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