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INTRODUCTION

Dear colleagues, authors and readers of the *Academia Polonica*
(*Scientific Journal of Polonia University, PNAP – Periodyk Naukowy Akademii Polonijnej!*)
Congratulation on the release of a new *Academia Polonica* 72 (5) (2025)!

In this issue, we present scientific articles that address urgent problems in language, culture, communication, education, sociology, technology, creativity, and implementation.

The collected papers and their objectives highlight research in linguistics, translation, intercultural communication, and education. They explore topics such as the lexical code of contemporary English media texts, a discursive perspective on the use of sensory modes in shaping responsible media reality, a methodology for employing statistical data in teaching German for specific purposes, authentic literary English texts as a tool for teaching analytical reading, activities of the Ukrainian regional committee for aid to refugees in Lviv (1916–1917), the innovative competence of higher education students as a key element of management activities, the historical development of English: from Old English roots to a global lingua franca. Much attention is paid to artificial intelligence revolutionising the language learning process and artificial intelligence as a tool for automating news production: impact on the genre system, as well as effective communication in a professional environment: the role of soft skills for philologists, rethinking decolonisation and resilience of Ukrainian higher education in the context of war and global platforms, consequences of Russian colonial policy for the speech practice of Ukrainians (on the adverbial equivalents of the word “example”) and pedagogical support as a mechanism for developing adolescents’ emotional stability in the educational environment.

This *Academia Polonica* issue also highlights current problems in modern society, such as the competence of specialised administrative courts in Ukraine, digitalisation of public procurement as a tool for ensuring transparency and combating corruption in Ukraine, digital identification as a key factor in establishing the right to a name, the Tokyo tribunal: had a go at, but chose not to utter a word of punishment, legal protection of employees’ health and safety using artificial intelligence: European practices.

In the fields of technology, creativity, and implementation, particular focus is placed on applying European methods of urban transformation to rebuild the urban environment in the post-war era and on the features of building in Kyiv at the end of the 19th – early 20th centuries.

We thank our authors who have already submitted their scientific articles to *Academia Polonica*, as well as those planning to submit their research findings to our journal. We also want to sincerely thank all members of the editorial board, reviewers, and everyone who graciously accepted our invitation to collaborate and help develop *Academia Polonica*.

With respect and regards
Maciej Rudnicki, Prof. PhD, Editor in Chief

LANGUAGE, CULTURE, COMMUNICATION**ACTIVITIES OF THE UKRAINIAN REGIONAL COMMITTEE
FOR AID TO REFUGEES IN LVIV (1916–1917)****Vasyl Bosak**

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Summary

The article examines the activities of the Ukrainian Committee for Refugee Relief in Lviv during 1916–1917 as a significant example of civic self-organization in wartime conditions. It explores the development of the committee's administrative structure, its cooperation with the Governor's Office, local authorities, and charitable institutions. The organizational structure of the committee became increasingly complex – evolving from a small initiative group into a multi-branch system with separate sections for food supply, refugee assistance, record keeping, address tracing, and employment mediation. The main areas of work included providing refugees with essential supplies, organizing food distribution, producing clothing and footwear, offering pastoral care, and facilitating the repatriation of displaced persons to Galicia. The study highlights difficulties caused by bureaucratic obstacles, financial delays, and the overall exhaustion of Austro-Hungarian resources in the final years of the war. Despite these challenges, the committee fulfilled an important mediating role between the authorities and the population, exemplifying social solidarity and civic initiative. Its activities reflected the growing social maturity of the Ukrainian community in Lviv and contributed to the emergence of a tradition of public service and responsibility under crisis conditions.

Key words: World War I, Austro-Hungarian Empire, Eastern Galicia, occupation, Greek Catholic Church, Ukrainian intellectuals, volunteers, Ukrainian Sich Riflemen.

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1. Introduction

Since the beginning of the Russian–Ukrainian war in Donbas in 2014, and especially after the full-scale invasion of Ukraine in 2022, the issue of forced displacement and refugees has become one of the most urgent humanitarian challenges of our time. Ukrainian society has once again faced massive flows of internally displaced persons, loss of housing, and the need to rebuild social structures in new conditions. In this context, analyzing the experiences of previous generations – in particular, the refugee movement in Galicia during World War I – becomes highly relevant. Studying historical practices of survival, self-organization, aid, and state response helps to understand the continuity of social processes and provides a foundation for modern humanitarian policy development.

The aim of the article is to analyze the activities of the Ukrainian Committee for Refugee Relief in Lviv in 1916–1917, to identify its main directions of work, relations with governmental institutions, challenges in implementation, and its broader significance for Ukrainian public life during the war.

Research objectives:

1. To examine the organizational structure and membership of the committee.
2. To characterize the main areas of its work – material, educational, spiritual, and administrative assistance to refugees.
3. To analyze the committee’s cooperation with government authorities and other charitable organizations.
4. To identify the main difficulties faced by the committee and the means used to overcome them.
5. To assess the social significance of the committee’s activity in the context of the development of Ukrainian civic life in Galicia.

Scientific novelty lies in the fact that the activities of the Ukrainian Committee for Refugee Relief in Lviv are for the first time the subject of a separate scholarly study. In previous historiography, this issue remained on the margins of broader research on the socio-economic life of Lviv and wartime charity. Addressing it provides a deeper understanding of Ukrainian civic engagement during World War I.

The First World War, which unfolded in the territory of Galicia, caused a series of serious humanitarian problems, including the spread of epidemics, large-scale destruction, and the displacement of a significant number of refugees. Researchers estimate that during the First World War, the total number of refugees from Eastern Galicia and Bukovina reached approximately 1,1 million people (*Kondratiuk, 2006: 619*). In 1915–1916, between 224 000 and 321 000 inhabitants of the region were forced to leave their homes (*Kargol, 2012: 25*).

In the context of Lviv, the number of refugees amounted to at least 14 000 (*Shchodra & Petrii, 2015: 360*) to 30 000 people, representing 6,6–14,1% of the city’s prewar population – 212 000 (*Bosak, 2025: 59*). However, the actual figures may have been considerably higher, as among the 200 000 registered in the capital of the Austro-Hungarian Empire (*Kramarz, 1994: 37*), about 10 000 were natives of Lviv (*Powrot uchodźców, 1916: 3*). At the beginning of the war, Lviv itself received approximately 30 000 displaced persons (*Holubets, 2023: 319*), and by 1917 their number had increased to nearly 71 000 individuals (*TsDIAL-1: 1–3*).

The issue of providing assistance and accommodation for displaced persons fell upon the Ukrainian, Polish and Jewish national communities, which undertook organizational measures to address it. For this purpose, both communities established special committees tasked with coordinating and delivering aid to those affected by the hostilities. This article examines the activities of the Ukrainian Regional Committee for Aid to Refugees in Lviv, which played an important role in providing support to the population during the years 1916–1917.

2. Idea and reasons for the establishment

The idea of establishing the Ukrainian Committee for Aid to Refugees emerged after the beginning of the second wave of displacement in July–August 1916, when Lviv, as a major railway hub, became a transit point for refugees (*Mick, 2016: 97*). The displaced persons were temporarily accommodated in the Yaniv (*TsDIAL-2: 1*) and in the barracks near the main station (*TsDIAL-3: 17*) suburb before continuing their journey to the rear regions of the Austro-Hungarian Empire. This situation created a number of logistical challenges – the need to register

people, provide them with food, clothing, and medical assistance, as well as to maintain proper sanitary conditions.

The initial initiative to establish the committee came from Andrii Biletskyi (1847–1926), the Vicar General of the Lviv Metropolis of the Greek Catholic Church, who acted in place of Metropolitan Andrei Sheptytskyi during his arrest and exile by the Russian occupation authorities (*Uska, 2011: 134*). On August 21, 1916, Biletskyi convened the first meeting of a small initiative group of public figures, which included Kyrylo Studynskyi, Sydir Holubovych, Denys Korenets, priest Yulian Dzerovych, and Oleksandr and Mariia Kmitykevych. The group's main task was to involve a broader circle of Ukrainian public representatives in the creation and development of the new committee, as well as to raise funds to support refugees (*TsDIAL–2: 1*). The Greek Catholic Church became the first financial donor, transferring 4000 crowns to the committee under the patronage of Andrii Biletskyi (*TsDIAL–2: 2*).

3. Executives and personnel composition of the committee

At the committee's founding meeting on October 9, 1916, five individuals were unanimously elected as executives. The committee was headed by Oleksandr Kmitykevych (1859–1944), a lawyer and public figure. He began his career as a district judge in Obertyn, later serving as a councillor of the Regional Court in Lviv, and from 1911 as a councillor of the Higher Regional Court. Subsequently, he worked as a judge at the Court of Appeal in Lviv (*Mysak, 2020: 38*). The head of the city branch was Daria Navrotska (Bilynska) (1893–1984), an active public activist and the wife of Osyp Navrotskyi, an officer of the Ukrainian Sich Riflemen (*Dariia Bilynska (Navrotska)*). After graduating from the Faculty of Philosophy of Lviv University, she worked as a teacher at the practice school affiliated with the Teacher Training Seminary of the Ukrainian Pedagogical Society. The position of secretary was held by Oleksandra Holubets (Bachynska) – the first wife of Mykola Holubets, a historian, art critic, and unter-officer of the Ukrainian Sich Riflemen. A little later, Kyrylo Studynsky (1868–1941) – a prominent linguist, writer, and professor at Lviv University – joined the committee's activities.

In total, the committee comprised 73 members, including 45 women and 28 men – representatives of the Ukrainian intellectuals of that time. Among them were several notable figures (*TsDIAL–3: 1–2*). One of these was Yevhen Levytskyi (1870–1925), a well-known lawyer and publicist, one of the initiators of the Ruthenian-Ukrainian Radical Party, and later a co-founder of the Ukrainian National Democratic Party. The committee also included Yulian Dzerovych, a prominent educator and theologian. Another member was Volodymyr Tselevych (1891–1943), who would later become the Secretary General of the Ukrainian National Democratic Alliance, the leading Ukrainian political organization in Eastern Galicia during the interwar period.

4. Areas of the Committee's Activity

To organize the committee's work effectively, it was first necessary to establish cooperation with the local authorities. For this purpose, Oleksandr Kmitykevych and Yulian Dzerovych held a meeting with the city commandant of Lviv, General Franz Rimmel, and the vice-commandant, Colonel Michel, as a result of which they received 12 passes allowing them to visit the barracks where refugees were temporarily accommodated (*TsDIAL–2: 2*). Despite these efforts, the municipal authorities regarded the presence of displaced persons in Lviv as only temporary, planning to relocate them soon to rural areas in the neighboring districts – Horodok, Zhovkva, Yavoriv, and Mostyska. An important area of activity was the care for orphans.

On the initiative of Oleksandr Kmitykewych, it was decided to place them directly in Lviv or its surroundings, which ensured proper supervision and care (*TsDIAL-2: 2*).

The second area of the committee's activity involved solving logistical problems, particularly improving living conditions in the temporary shelters for refugees and organizing their food supply. At major transportation hubs, it was necessary to establish a network of free dining facilities for those in transit. The model for organizing such dining facilities was adopted from the female volunteers of the Polish and Jewish Red Cross (*TsDIAL-2: 3*). At first, the committee did not plan to establish its own fully functioning kitchen (*TsDIAL-2: 2*) but intended instead to organize food assistance for refugees using the facilities of an already operating Jewish canteen at the main railway station (*TsDIAL-3: 4*). To this end, consultations were held with its director, Mrs. Meltzer (*TsDIAL-2: 4*). A particularly urgent issue was employment, since a large number of refugees (especially intellectual workers) had no opportunities to find work, leaving their families without stable financial support.

The third area of the committee's work was the engagement of volunteers and the mobilization of financial support within the Ukrainian community, primarily among the clergy and the secular intellectuals. To this end, a series of private meetings was first organized, followed by a media campaign launched in the local press (*TsDIAL-2: 3*). Particular attention was devoted to information work – the need for publications in the local press highlighting the difficult living conditions of the displaced population was emphasized (*TsDIAL-2: 9*). The public was also encouraged to join volunteer efforts at the canteen and take part in daily shifts at the railway station.

5. The Beginning of the Organization's Activities in 1916

The committee's direct activities began in mid-September 1916, when the first volunteers (mostly young women) responded and joined the work at the relief canteen (*TsDIAL-2: 5*). Members of the organization were on duty at the main railway station in Lviv, where trains carrying refugees arrived continuously. The shifts lasted from 8:00 a.m. to 10:00 p.m. and were divided into three rotations of two people each: 8:00–13:00, 13:00–16:00, and 16:00–22:00 (*TsDIAL-2: 7*). Soon after, it was decided to establish round-the-clock shifts (*TsDIAL-3: 14*) at the relief canteen in order to assist trains carrying wounded Ukrainian soldiers, particularly Sich Riflemens, who mostly arrived during the night.

The duties of the volunteers were not limited to kitchen work – they also maintained communication with incoming refugees and wounded soldiers. At the same time, its leadership continuously sought to improve working conditions for volunteers by reimbursing their tram fares to the railway station and providing chess and checkers for rest between shifts (*TsDIAL-2: 10*).

Based on these interactions, as well as on the experience of the Jewish relief stations, it became possible to identify areas for improvement. For instance, it was decided to provide transit wounded Ukrainian soldiers with cigarettes. The committee allocated 100 crowns per month for the purchase of tobacco products (*TsDIAL-3: 4; 10*).

The main expenditure item, especially during the autumn and winter seasons, was the provision of clothing, linen, and footwear for the refugees. Some of these items were purchased by the organization and distributed directly to those in need, while in other cases, funds were allocated to committee representatives or local community members for this purpose. By the committee's decision, individual refugees could receive personal financial aid upon request, usually ranging from 10 to 50 crowns.

As the committee's activities expanded and its membership increased, the need arose for a clearer organizational structure. Consequently, the committee was divided into several

sections (*TsDIAL-2: 2; 9-10*):

- 1) the food supply section (canteen service);
- 2) the refugee assistance section;
- 3) the address-tracing section, responsible for registering and counting refugees;
- 4) the employment and labor mediation section.

Alongside internal reorganization, the leadership emphasized the need to expand the committee's network by establishing district-level branches across the rear territories of the Galician Governorate where refugees were being resettled. One of the first district committees was established in Zhovkva in October 1916. The task of maintaining refugee statistics and records in localities was assigned to administrators of the Greek-Catholic parishes (*TsDIAL-2: 11*). This was a well-considered decision, as they maintained constant communication with their communities and were familiar with local conditions – including housing availability and employment opportunities for displaced persons.

In October 1916, the activities of the Refugee Relief Committee in Lviv came to the attention of the General Ukrainian Council, a political organization established in Vienna in 1915 to represent the interests of the Ukrainian nation before the military and political authorities of the Austro-Hungarian Empire (*TsDIAL-2: 9; 11*). The Council's president, Kost Levytskyi, expressed gratitude to the committee members for their work and pledged to advocate for government support to secure at least partial funding. He also endorsed the view that Ukrainians should be evacuated from their homes only in the event of a direct threat from the front line and should be relocated nearby, within their home region (*TsDIAL-2: 9*).

The committee's primary funding came from quotas of the Austro-Hungarian Ministry of the Interior (through the mediation of the General Ukrainian Council) and from the Galician Governor's Office. The expected allocation from the Governor's Office amounted to 100 000 crowns, prompting the Lviv Police Directorate to carefully audit the organization's financial records. Significant support also came from other Ukrainian public organizations. For example, the "Silskyi Hospodar" Society donated 1000 crowns to assist families in difficult financial circumstances (*TsDIAL-2: 10*). Some members of the society joined the committee's work directly, including priest Tyt Voynarovskyy (1856–1938), a priest and prominent public figure.

6. Expansion of Activities and Challenges of the Committee in 1917

In January 1917, monthly fundraising campaigns were introduced in the parishes of the Lviv and Peremyshl Eparchies of the Greek Catholic Church to support refugees (*TsDIAL-2: 17*). In February of the same year, the committee underwent a significant reorganization. Due to illness, Oleksandr Kmityshevych finally withdrew from leadership, transferring his duties to his co-organizer – the general vicar, priest Andrii Biletskyi. At Kyrylo Studynsky's initiative, the internal structure of the organization was reformed: from then on, its work was coordinated by the newly established Administrative Council. Its composition included: Oleksandr Kmityshevych (nominal chairman); deputies – Kyrylo Studynsky, Hermina Shukhevych; secretary – Yulian Dzerovych; treasurer – Mariia Kmityshevych; members – Mechyslav Dnistriansky, Mykhailo Halushchynsky, Izidor Holubovych, Oleksandra Holubets, and Volodymyr Tselevych (*TsDIAL-2: 18-19*).

Not all members of the committee welcomed the establishment of the Administrative Council, which led to an internal conflict. Members of the society – Mykola Moroz, Ivan Makukh, and Ilarion Levytsky – expressed their protest in letters, provoking dissatisfaction from Kyrylo Studynsky, who, as deputy chairman, effectively assumed the role of leader (*TsDIAL-2:*

22–23). Oleksandr Kmityshevych, weakened by illness and disheartened by the conflict, submitted his resignation for the second time. The mediator between the Administrative Council and the “opposition” became Andrii Biletskyi. Yulian Dzerovych and other committee members persuaded Kmityshevych to remain, emphasizing the symbolic importance of his figure as one of the founders and ideological inspirers of the committee. Despite his discouragement, he agreed to continue participating in its work. The conflict was settled with an agreement to draft a statute for the Ukrainian Committee for Refugee Relief, ensure greater transparency in decision-making, and adopt the principle of unanimous approval (*TsDIAL–2: 23–24*).

A new stage in the committee’s activity began after a meeting between its representatives and the newly appointed Governor-General of the Kingdom of Galicia and Lodomeria, Karl von Huyn (1857–1938). The Governor received a delegation consisting of the committee’s chairman Oleksandr Kmityshevych, his deputy Hermina Shukhevych, and activist Oleksandra Holubets (*TsDIAL–2: 25*). Given the urgency of the issue, Karl von Huyn attentively listened to the committee’s report and expressed interest in the situation of refugees in the province under his administration.

During the audience, the delegation presented a detailed report outlining the principal needs of the displaced population. In response, the Governor-General pledged to support the committee’s administrative work and to assist in securing financial aid for refugees in need, particularly for schoolchildren. Karl von Huyn made no distinction between the Ukrainian and Polish communities in matters of financial support (*TsDIAL–2: 33*), yet the Ukrainian side received its funding with considerable delay. As a result of persistent appeals from the Ukrainian public, the Austrian authorities allocated 100 000 crowns to aid refugees. In practice, the committee received the promised funds only at the beginning of October 1917 (*TsDIAL–2: 40*).

The Administrative Council sought to oversee the activities of all district committees, though their circumstances and efficiency varied considerably. In Yavoriv, for example, the Ukrainian Refugee Relief Committee cooperated with its Polish counterpart, ensuring that displaced persons received adequate assistance (*TsDIAL–2: 26*). In Sambir, the committee likewise worked jointly with the Poles, maintaining a feeding station but showing little initiative in protecting other interests of the refugees. In Przemyśl, there was an acute shortage of priests to provide spiritual care for the displaced population, prompting an official request to the Metropolitan Consistory for their assignment (*TsDIAL–2: 27; 28*). Meanwhile, the Ukrainian committee in Zhovkva was notably passive (*TsDIAL–2: 26*) and lacked financial resources (*TsDIAL–2: 28*), which negatively affected the condition of refugees. To remedy the situation, a fundraising campaign was organized through local Greek Catholic parishes.

Following the relative stabilization of the front in August 1917, the Austrian authorities permitted the return of refugees to their homes in several districts – including Bibrka, Zhydachiv, Stryi, Stanislaviv, and Bohorodchany. This led to a sharp increase in railway traffic and, consequently, a renewed intensification of the committee’s overall activities. Another initiative of the committee involved encouraging refugees to return to Galicia by offering them employment opportunities. In the Austrian town of Gmünd, where a large camp of Ukrainian refugees was located, an appeal was published in local Ukrainian newspapers (*TsDIAL–2: 27*) inviting them to resettle and work in the Lviv and Rava districts. The campaign was actively supported by Kost Levytsky, and approximately 500 refugees responded to the call (*TsDIAL–2: 29*). Despite the ambitious plan to accept a large number of refugees from the Gmünd camp, in practice the committee was unable to meet even their basic needs – particularly the provision of food at the relief station. Additional bureaucratic difficulties arose as well, including the issuance of travel documents and payment of transportation allowances (*TsDIAL–2: 36*).

In the spring of 1917, the Austro-Hungarian government launched a program to compensate farmers with 5 million crowns for purchasing livestock (*TsDIAL-2: 29*). The decision was welcomed by the public, as it promised to ease the situation of many displaced families. However, it also presented new challenges – ensuring fair distribution and control of the funds, as well as addressing the lack of pastures in villages where refugees had been resettled.

During this period, the committee also began supporting demobilized Ukrainian soldiers of the Austro-Hungarian army whose homes remained in the occupied parts of Bukovina and Galicia. To provide for them, committee representatives appealed to the commandant of Lviv, Novotny, requesting the issuance of food vouchers (*TsDIAL-2: 33*).

With the onset of autumn, the organization began collecting data on the number of refugees, first in Lviv and later in other districts. The work was coordinated by the Police Directorate and aimed at providing refugees with warm clothing, footwear, mattresses (straw sacks), and blankets (*TsDIAL-2: 37*). For this purpose, the Austro-Hungarian government allocated 30 million crowns (*TsDIAL-2: 43*), although the Galician Governorship also encouraged the committee to organize additional public fundraising, which took place from December 16 to 23, 1917 (*TsDIAL-2: 45*). Oleksandr Kmicykevych personally took part in ministerial meetings in Lviv dedicated to providing refugees with winter clothing. He also appealed to the Raw Materials Bureau of the Chamber of Commerce and Industry to obtain an initial batch of leather sufficient for the production of 100 pairs of shoes (*TsDIAL-2: 43*).

However, the actual distribution of clothing and footwear was delayed until December 1917, as the Austro-Hungarian Empire was entering a severe phase of the war of attrition, with most resources directed primarily to the front. Moreover, due to the drive to cut costs and simplify production, refugee shoes were made with wooden soles (*TsDIAL-2: 44*).

7. Conclusions

The activities of the Ukrainian Committee for Refugee Relief in Lviv during 1916–1917 represented one of the earliest large-scale efforts by the Ukrainian community to organize a humanitarian response to the challenges of World War I. The committee's main focus was on providing material, social, and moral assistance to refugees – primarily through food distribution, clothing, housing, and employment support. An essential aspect of its mission was the care for orphans and wounded soldiers, particularly members of the Ukrainian Sich Rifleman.

Over time, the organizational structure of the committee became increasingly complex – evolving from a small initiative group into a multi-branch system with separate sections for food supply, refugee assistance, record keeping, address tracing, and employment mediation. Its operations were marked by a high degree of self-organization and volunteer participation, involving primarily the Ukrainian intellectuals, clergy, and youth.

A key factor in the committee's effectiveness was its cooperation with state authorities – including the Galician Governorship, the Police Directorate, the Lviv Command, and the General Ukrainian Council in Vienna, which served as a mediator between Ukrainian organizations and the Austro-Hungarian government. Although government subsidies often arrived late and bureaucratic procedures impeded efficiency, the committee managed to provide essential aid to a significant number of refugees.

Despite its active efforts, the committee faced numerous challenges: lack of financial resources, administrative barriers, internal leadership conflicts, and the general exhaustion of imperial resources in the later stages of the war. Nevertheless, even under these constraints, the committee fulfilled an important social function – serving as a mediator between authorities and

Ukrainian refugees, fostering community-based relief mechanisms, and strengthening national solidarity among Ukrainians in Galicia.

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INNOVATIVE COMPETENCE OF HIGHER EDUCATION STUDENTS AS A PRIORITY COMPONENT OF FUTURE PROFESSIONAL MANAGEMENT ACTIVITIES

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Summary

In the study, the authors revealed the importance of developing innovative competence in higher education students as an important component of future professional management activities. They examined the definition of innovative competence in various literary sources and identified the main scientific approaches to determining the content and structure of this phenomenon. Innovative competence is considered a key professional competence of a modern specialist, and it is noted that its absence significantly reduces the effectiveness of professional activity, especially in conditions of turbulence and constant modernisation of social and technological processes. Innovative competence reflects an individual's readiness and ability to adapt, generate and implement changes, which is a prerequisite for successful and sustainable functionality in a dynamic professional environment.

The relevance of the study is confirmed by rapid technological progress and the need to overcome the identified gap between the high theoretical knowledge of students and their insufficient psychological readiness for innovative risk and practical entrepreneurial implementation of ideas, which was established through empirical surveys. To achieve the research objective, systematic and comprehensive analyses of scientific and pedagogical literature on the essence and structure of innovative competence were used.

Summarising the results of the analysis, the authors concluded that the teaching staff actively uses modern pedagogical technologies, and the knowledge control system motivates students to be creative and original, rather than just reproducing information.

Key words: innovative competence, higher education institutions, pedagogical conditions, project-based learning, entrepreneurship, planning.

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1. Introduction

The development of innovative competence is an important component of future professional management activities. As the authors of the study (*Smyrnova, Akimov, 2021*) note: 'For effective management of changes in various spheres of public life, employees must have a

special level of training that allows them to master new knowledge, skills, abilities and issues of quality education.' The educational environment should be one where students not only acquire knowledge, but also develop the ability to generate new ideas, think critically, solve atypical problems and successfully implement innovations in professional practice. This requires higher education institutions to modernise their curricula by integrating interdisciplinary projects, problem-based learning and practical interaction with business and innovation ecosystems. Thus, the development of this competence is a key lever for transforming higher education institutions (hereinafter referred to as HEIs) into active centres of innovation that prepare leaders of change capable of overcoming the challenges of rapid technological progress and ensuring the sustainable development of society.

An analysis of scientific research (*Mashkina, 2018*) leads to the conclusion that in the process of obtaining higher education in today's conditions, it is important to develop a system of management skills and analytical competence in future specialists. This involves acquiring the ability to correctly diagnose and deeply analyse complex practical problems. In particular, applicants must master the methodology of strategic thinking, which allows them not only to identify the causes of problems, but also to develop, justify and effectively implement optimal strategies for solving them in a dynamic professional environment. This process directly contributes to increasing their professional subjectivity and competitiveness in the labour market.

An analysis of scientific approaches to identifying the factors that shape innovative competence demonstrates their complexity, covering organisational and environmental as well as individual and personal levels. In particular, in her study, O. Yevdokimova focuses on external conditions and the managerial readiness of the institution (availability of resources, atmosphere of support for change, leadership position of the manager, structural readiness). In contrast, L Burchak focuses on internal factors (individual readiness, motivational and value attitudes, adaptability, experience and self-reflection skills) (*Burchak, 2023*). In summary, it can be argued that the effective formation of innovative competence requires a synthesis of managerial support and the creation of a favourable environment with the active development of internal motivation and reflective skills of the subject.

The aim of our study is to examine the pedagogical conditions under which the development of innovative competence of higher education applicants becomes effective as an important component of future professional management activities.

2. Principles of forming innovative competence of applicants in higher education institutions

The key principles for developing innovative competence in higher education students are fundamental, strategic guidelines that determine the overall course and methodology of the educational process and professional training. They guide the activities of higher education institutions towards effectively developing students' capacity for innovation.

An analysis of scientific research (*Kononenko, Smyrnova, 2021; Mashkina, 2018*) allows us to conclude that the principles of developing the innovative competence of HEIs students are a system of basic, defining ideas and rules that serve as strategic guidelines and a tactical basis for organising the educational process, aimed at creating a favourable innovative educational environment, ensuring high-quality professional training of students, and effectively developing their readiness and ability to generate, implement, and commercialise new ideas, technologies, and solutions in their future professional activities.

We interpret innovative competence as an integral characteristic of personality that encompasses a set of key competencies, including research, strategic, creative, communicative, informational, economic, and legal competencies. Successful innovative activity requires an individual not only to effectively search for and analyse information using various methods of cognition, but also to have a deep understanding of the structure of the activity and the ability to organise it rationally. In addition, it is essential to predict the impact of the results of innovative work on both the environment and the individual as a whole.

Based on the analysis of scientific sources and pedagogical observations, we have established that, in addition to general principles, the application of a number of specific principles that determine the quality and direction of the educational process is important for the successful formation of innovative competence:

The principle of creativity and exploration, which requires a focus on developing applicants' creative thinking, initiative, and critical analysis. It involves constantly encouraging applicants to generate unconventional solutions and be prepared to take constructive risks in search of new ideas and approaches.

The principle of interdisciplinarity. Modern innovations rarely arise within a single discipline. The principle of interdisciplinarity consists in integrating knowledge from various fields (technical, economic, humanities, design) to form a systematic vision of problems, understanding of context, and identification of hidden innovative opportunities in applicants.

The principle of practical orientation. Competence can be developed only through action. This principle requires the learning process to be as close as possible to real production, scientific and market tasks. This is achieved through project-based learning, practical case studies, internships and close cooperation with business and innovation ecosystems.

The principle of subjectivity and self-development. Students should not be objects of learning, but its active subjects. This principle implies that students independently plan the trajectory of their innovative development, take responsibility for their learning outcomes, and teachers act as mentors and facilitators.

5. The principle of consistency and integrity ensures the coherence of all components of professional training: the content of educational programmes, forms and methods of teaching, and assessment criteria. Everything must be subordinated to a single goal — the holistic formation of innovative competence as a unity of knowledge, skills and personal qualities.

6. The principle of entrepreneurship development. Innovation has value when it can be implemented. The principle of entrepreneurship is aimed at developing the ability of students to turn ideas into action (commercialise them). It includes an understanding of business processes, the basics of finance, marketing, and the ability to assess the commercial value of innovative projects.

3. Pedagogical conditions for the effective development of innovative competence among higher education applicants

An analysis of scientific literature confirms that the issues of pedagogical conditions for the organisation and implementation of the educational process have been thoroughly explored in the works of such leading scholars as V. Bepal'ko, O. Bepal'ko, G. Golubova, S. Goncharenko, O. Dubasenyuk, V. Manko, O. Pechota, and others. Special attention should be paid to research on the pedagogical conditions for preparing future specialists for innovative activity, which is reflected in the scientific works of I. Gavrysh, I. Dychkivska, S. Zagorodnyi, I. Konovalchuk, L. Kozak, G. Syrotenko, and others. Over the past year, Ukrainian science has

produced a number of works related to the innovativeness of future specialists, including dissertation research by V. P. Chudakova, Yu. O. Lukomska, N. P. Tubaltseva, O. M. Kovalchuk, V. V. Yagodnikova and others. Despite the significant theoretical basis and high value of these studies, it is worth noting the lack of a unified approach to the systematisation of pedagogical conditions for the development of innovative competence as a component of the future managerial activities of applicants. Researchers consider competencies through the prism of various categories, in particular the potential of the educational process; the target aspects of didactic activity; the availability of a purposefully created educational environment (as a necessary prerequisite); and a set of factors of an organisational, pedagogical or methodological nature.

Such terminological variability necessitates further scientific research to clarify the essence and structure of pedagogical conditions adequate for the formation of innovative competence.

Analysis of scientific research and our own pedagogical experience has allowed us to identify the pedagogical conditions for the effective development of innovative competence in higher education institutions:

1. Creation of an innovation-oriented educational environment. This involves creating an atmosphere of creative freedom, cooperation, stimulating research and readiness for constructive mistakes. The educational environment should encourage risk-taking, critical thinking, and open dialogue between students, teachers, and business representatives.

2. Ensuring interdisciplinary and project-based learning. This involves integrating knowledge from different fields and actively using project-based activities (e.g. start-up projects, case studies, hackathons). This allows students to solve real-world complex problems, turning ideas into practical solutions.

3. Introduction of active and interactive teaching methods (problem-oriented approach). Use of methods that require students to independently search for information, formulate hypotheses and evaluate decisions (e.g., simulations, business games, training sessions, design thinking). This transforms the learner from a passive consumer of information into a co-author of the learning process.

4. Organisation of reflective and evaluative activities. Inclusion of mechanisms for self-analysis, self-assessment and feedback on innovative activities. Students should constantly evaluate the effectiveness of their approaches, be aware of the strengths and weaknesses of their innovative ideas, and adjust their own development trajectory.

5. Ensuring the integration of the educational process with innovative infrastructure (business and science). Establishing close cooperation between higher education institutions and enterprises, science parks, incubators and accelerators. This gives students the opportunity to test their innovative ideas in real conditions, receive mentoring support and develop entrepreneurial skills.

The authors surveyed 98 students in their second and third years of the first (basic) level of full higher education to determine how higher education students view the development of their innovative competence within HEIs.

The first question asked them to assess their own innovative competence and its development during the learning process. They had to rate the categories on a Likert scale: 1 – Strongly disagree to 5 – Strongly agree. The average results of the survey are presented below:

- I have sufficient knowledge of innovative processes and technologies in my field – 4.5.
- I feel that I have the skills to generate new ideas and critically analyse them – 3.85.
- I am ready to participate in risky but potentially groundbreaking educational or professional projects – 3.25.

– Studying at a higher education institution stimulates my creativity and search for non-standard solutions – 4.15.

– I am able to work in interdisciplinary teams to develop innovations – 4.25.

– I understand how to turn an innovative idea into a commercially successful project (entrepreneurial competence) – 4.0.

The average survey results (on a 5-point scale) demonstrate a high overall level of undergraduates of applicants' innovative competence, but reveal a significant imbalance between theoretical training, team skills and risk-taking/entrepreneurial implementation. In particular, the category 'Knowledge of innovative processes' stands out. It has the highest score, which indicates that students rate their theoretical knowledge very highly. This may be the result of high-quality teaching of theoretical courses related to innovation and technology. The following categories, 'Learning at HEIs stimulates creativity' and 'Interdisciplinary work,' have high ratings, indicating that the educational process truly encourages creative exploration and effectively develops teamwork skills, which are important for modern innovation activities.

The next stage of the study was aimed at assessing the management of the process of forming innovative competence. Students were asked to assign scores from 1 – Strongly disagree to 5 – Strongly agree. The results of the average scores are shown below:

The curricula of my speciality are clearly focused on developing innovative competence – 4.0.

The higher education institution has created a favourable environment (laboratories, access to technologies) for innovative activity – 4.15.

Teachers encourage the use of active and project-based learning methods – 4.0.

The management of the higher education institution ensures effective cooperation with innovative enterprises and start-ups – 3.85.

The knowledge assessment system takes into account the innovative approach and originality of the proposed solutions – 4.0.

I feel that the HEI administration considers innovative competence to be a priority learning goal – 3.85.

The average values of the survey results (on a 5-point scale) show that higher education students generally evaluate the efforts of higher education institutions positively, especially in terms of teaching and assessment methods. These indicators also show that at the administrative level, the formation of innovative competence is quite effective: teachers encourage active/project-based methods (4.0) and the assessment system takes into account an innovative approach (4.0). In other words, the teaching staff actively uses modern pedagogical technologies, and the knowledge assessment system motivates students to be creative and original, rather than just reproducing information.

4. Conclusions

Developing innovative competence in higher education students is a relevant and priority goal in the modern educational process. This competence is an important factor in the competitiveness of graduates and a driving force for the country's economic development. It is important to consider the systematic integration of innovative elements at all levels: from revising curricula to creating a favourable innovative environment. The key pedagogical conditions are project-oriented learning, interdisciplinarity, and close cooperation between higher education institutions and stakeholders. It has been established that only a comprehensive approach combining theoretical training with practical risk-taking and entrepreneurship will

ensure the training of specialists capable of generating and implementing breakthrough ideas. We see prospects for further research in the substantiation of specific management mechanisms for integrating the innovation component into educational programmes and increasing the effectiveness of external cooperation.

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METHODOLOGY FOR EMPLOYING STATISTICAL DATA IN TEACHING GERMAN FOR SPECIFIC PURPOSES

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Summary

This study explores the integration of statistical data into the content of foreign language professional education as a means of enhancing senior students' communicative competence. Engaging learners in tasks that involve interpreting and producing statistical information enables them to acquire essential meta-disciplinary knowledge and skills that foster autonomy, cognitive activity, and analytical thinking. The use of German-language statistical materials provides a valuable context for developing both logical reasoning and linguistic proficiency.

Within the framework of the research, a methodology was designed to incorporate statistical data into foreign language instruction, aimed at fostering the speech production skills and mental operations of students. This methodology is distinguished by its conceptual coherence, systematic approach, pedagogical manageability, efficiency, and reproducibility. It is grounded in the principles of interconnection between subject-specific and meta-subject learning, the guided formation of utterances containing statistical content, and the alignment of educational organization with the goals of developing students' cognitive and speech abilities. The key instrument ensuring the integration of linguistic and cognitive development is the use of exercises based on texts, diagrams, and other forms of statistical representation.

An experimental study confirmed the efficiency of the proposed methodology and its consistency with the intended objectives. The findings demonstrate its applicability across different learning environments and its potential for achieving high learning outcomes. The results also open new perspectives for applying statistical data exercises in other languages and educational levels, as well as for refining the approach through cross-linguistic and psycholinguistic research.

Key words: foreign language education, LSP, statistical data, speech skills, meta-disciplinary competence, methodology, educational experiment.

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1. Introduction

Statistical data is a collection of numerical information that quantitatively characterizes various aspects of public life. In foreign language teaching methodology, it acts as a conditional carrier of foreign language education content, the application of which in the process of developing students' speech skills activates the foreign language picture of the world. Due to linguistic, structural, semiotic, meta-subject, and other characteristics, statistical data can be considered as a semiotically complex text. The enormous significance of statistics in the life of modern society, the presentation of statistical data in textual, tabular, graphical, and mixed forms, the structure of statistical materials that correlates with mental operations, and the visual nature of statistical information presentation formats allow us to assume that with proper organization of foreign language speech skills acquisition, statistical data provides great opportunities for implementing the general educational orientation of the modern school education system, primarily for achieving meta-subject results of the educational program.

Methodological literature indicates the need to improve the quality of LSP acquisition and the simultaneous absence of technology for using statistical data in the educational process, as well as insufficient development of corresponding exercises (*Baumann 1992; Buhlmann, Fearn 2018; Guariento, Morley 2001; Roelcke, Kniffka 2016*). Although statistical materials are quite actively included in modern educational and methodological complexes, their use is rarely aimed at intensifying foreign language speech instruction. In methodological literature, statistical components are mentioned mainly incidentally: as a reflection of actual reality in the cognitive aspect or as supporting material at the stage of speech skills development (*Buhlmann, Fearn 2018*). However, works that purposefully investigate texts and other educational materials containing statistical data are currently absent. It is precisely the need for theoretical understanding and practical development of technology for using conditional content carriers in the form of statistical materials in LSP education for the purpose of teaching foreign language speech and simultaneously achieving other results of mastering the educational program that determines the relevance of our research.

The **object of the research** is the process of developing foreign language speech of senior students in general education schools. The **subject of the research** is the strategies and technologies for using statistical data in the process of developing LSP skills. The **aim of the research** is the scientific substantiation and resolution of the problem of using statistical data in teaching LSP as well as foreign language speech. The **research hypothesis** is that it is possible to develop senior students' speech competence and achieve desired educational results on the condition of organizing instruction through methodology for using statistical data that involve creating utterances based on statistical material by means of step-by-step solution of cognitive tasks correlated with corresponding mental operations.

The research sets the following **tasks**: 1) to substantiate the necessity of including statistical data in the process of teaching professional foreign language speech; 2) to examine the properties and structure of statistical data as a basis for creating technology for teaching professional speech in German; 3) to develop technology for using statistical data in teaching professional German language to students of humanities faculties; 4) to conduct experimental instruction based on the methodology we developed and evaluate its effectiveness.

Statistical data can be presented in three formats: textual, tabular, and graphical. None of the methods of presenting statistical information is homogeneous, that is, completely verbal

or visual. Even statistical graphs, in addition to the graphic image, graph field, spatial and scale reference points, contain an explication of the graph, that is, a verbal description of its content, which includes the graph title, labels along the scale axes, and explanations for individual parts of the graph. Graphic language belongs to language systems, as it is a means of conveying information about observed facts and their interpretation. In semiotics, graphic language is perceived as an artificial linguistic sign system; therefore, it can be stated that materials with statistical data are semiotically complex texts formed by combining natural language with elements of other sign systems. For such texts, there is still no single universally accepted terminological designation; authors use the terms *polycode text*, *linguovisual complex*, *isoverbal complex*, *isoverb*, *videoverbal text*, and so on. Within the framework of this research, we will use the term *creolized text*, as well as the phrase *semiotic complexity*, which describes the essence of the phenomenon.

The semiotic complexity of statistical materials creates advantages for developing foreign language speech, as it facilitates the perception and understanding of information based on which an utterance is created. Creolized text is the most convenient and natural form of information perception for humans due to its unique ability to perceive and record information in two ways – verbally (through words) and non-verbally (through sensory and visual images). Semiotic complexity contributes to quick orientation in the textual space and deep understanding of content through the simultaneous activation and synchronous coordinated work of the right and left hemisphere systems of the human brain.

The meta-subject aspect involves students acquiring "supra-subject", universal knowledge and methods of activity that are applied both within the framework of further education and in solving problems in real-life situations. The academic discipline "Foreign Language for Specific Purposes" has great potential for students to master the meta-subject content of education through the inclusion of a statistical component, which will allow students to develop the ability to navigate sources of statistical information, use a foreign language to obtain information from foreign language sources for educational and self-educational purposes, and to expand their knowledge in other subject areas. The prevalence, accessibility, high informativeness, and relevance of statistical data leave no doubt that students, even without being specialists in this field of activity, should be able to obtain, interpret, and use information from various sources containing statistical data.

By verbalizing statistical data, students improve another important meta-subject skill – carrying out the transition from one form of information representation to another. In addition, working with numerical information creates opportunities for developing the ability to concentrate, for training memory, and helps develop intellectual meta-subject skills. This work requires the speaker to perform various mental operations. Thus, familiarization with statistical content begins with its perception and comprehension (primary synthesis). Having obtained a general understanding of the phenomenon characterized by statistics, the student examines it more carefully, identifies structural components, elements of quantitative-qualitative characteristics, studies each part separately and in combination with others, correlating it with the whole, etc. (analysis). Then the student returns to the whole (secondary synthesis). By correlating the material's information with the language exercise instruction, the student performs analysis through synthesis. The student makes conclusions of a hypothetical nature, for example, conclusions by analogy, considering comparison. By abstracting from non-essential features (abstraction) and identifying essential data (concretization), the student determines the trend of development of the analyzed phenomenon and draws a conclusion (generalization). The need to provide a qualitative and quantitative characteristic of the phenomenon during communication also requires performing operations of comparison and classification.

2. Linguistic Aspects of Using Statistical Data in LSP Teaching

When compiling the linguistic characteristics of German-language statistical materials, we analyzed professional texts in German, selected through continuous sampling on the topic of “Youth” from sociological works (*Handbuch ... 2018; Hoffmann, Mansel 2010; Liebsch 2012; Quenzel, Hurrelmann 2022; Scherr 2009*) with a total volume of over 1,560 pages.

The topic of “Youth” and its numerous aspects – appearance, character, interests, dreams of young people, parent-child relationships, generation conflict, youth problems, first love, family, the impact of divorce on children's lives, the image of an ideal family, international youth projects, travel, etc. – serves as material for problem-based discussion in upper courses. The conducted analysis made it possible to identify the means of expressing semantics in German-language materials containing statistical data, as well as to reveal their structure and functional-stylistic features.

The main purpose of statistical data is to provide information for needs at any level (national, regional, municipal, down to the level of individual corporations and small firms) at a scientific level. An example is the online publication of materials from the University of Konstanz on youth crime in Germany: *Konstanzer Inventar Kriminalitätsentwicklung* (<http://www.ki.uni-konstanz.de/kik/>). Features of the scientific functional style can manifest themselves in creolized texts with statistical data with varying degrees of representation. This depends on the subject matter and the level of competence of the consumer. In addition to the purely scientific style, there is a popular science substyle designed for readers with a minimal degree of competence. An example is the joint publication by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth and the Federal Statistical Office “Die Familie im Spiegel der amtlichen Statistik” (The Family in the Mirror of Official Statistics): <http://www.dza.de/forschung/abgeschlossene-projekte/familie-i-spiegel-amtl-statistik.html> Statistical data often become part of journalistic texts, such as: the article “Jugendliche hängen nicht im Netz ab” by Nielsen company (Young People Don't Hang Out Online): <http://it20.eu/news/jugendliche-haengen-nicht-im-netz-ab> Below we present typical structural components of German-language statistical materials:

1) indication of the time period within which a certain phenomenon is observed: *seit 2004, seit vorigem Jahr;*

2) name/description of the location where the phenomenon manifests: *bundesweit in Großstädten;*

3) indication of units of measurement: *Angaben in Prozent;*

4) definition of the scope of phenomena for statistical analysis, the angle of their consideration: *Als Kinder gelten gesetzlich neben leiblichen Kindern auch Adoptiv-, Stief- und Pflegekinder;*

5) information about the conducted research (when, by whom, in what form, on what basis the research was carried out): *Die folgenden Grafiken veranschaulichen eine Anfang der zwanziger Jahre durchgeführte Befragung;*

6) description of the current state of the phenomenon: *Bei den jugendlichen Teilnehmern 16+ stellen wir fest, dass die Option „Eltern“ abrupt sinkt;*

7) comparison of phenomena with different parameters: *Die Jugenderwerbslosenquote zeigt jedoch gravierende Unterschiede in den Bundesländern;*

8) indication of comparison parameters: *Ein weiterer wichtiger Faktor ist der Bildungsstand: Jugendliche aus sozial schwächeren Verhältnissen besitzen eine vier Mal kleinere Wahrscheinlichkeit..., als in höheren Bildungsschichten;*

9) identification of main development trends of the presented phenomenon: *Es gibt im letzten Jahrzehnt mehr Alleinerziehende ...;*

10) confirmation of the phenomenon's development trend with facts: *Am deutlichsten schlägt sich dies in dem seit Jahrzehnten anhaltenden Geburtenrückgang nieder;*

11) explanation of the reasons for such development of the phenomenon: *Die Gründe für eine solche Unfallgefährdung dürften nach wie vor in der steigenden Risikobereitschaft liegen;*

12) indication of the degree of prominence of the trend: *Bei den jugendlichen Azubis fällt gleich die Verringerung der Zahl der arbeitsbedingten Unfälle gegenüber dem Vorjahr ins Auge;*

13) indication of the degree of expectedness of the trend: *Wie erwartet, ist die Zahl der Studierenden gestiegen. Erwartungsgemäß hat sich die Jugendarbeitslosigkeit verringert.*

14) indication of the degree of prevalence of the trend: *In Familien mit Migrationshintergrund ist Kinderlosigkeit weitaus weniger verbreitet als bei deutschen Paaren;*

15) indication of opposite trends: *Im Gegensatz zu neuen Bundesländern leben minderjährige Kinder im Westen Deutschlands viel seltener in dieser Lebensform;*

16) indication of similar development trends: *Diese Grundtendenzen betreffen gleichermaßen Ost- und Westdeutschland;*

17) indication of the involvement of several phenomena in the development process: *Eine derartige Überrepräsentation junger Menschen sowohl unter den Tatverdächtigen als auch unter den Verurteilten ist seit langem zu verzeichnen;*

18) assumption about the further development of a certain phenomenon: *Angesichts der steigenden Bildungsbeteiligung junger Frauen ist in den kommenden Jahren mit einer weiteren Erhöhung des Akademikeranteils zu rechnen;*

19) indication of the uncertainty/incompleteness of the trend or the impossibility for this reason to draw a conclusion about the development of the phenomenon: *Es ist eine Entwicklung zu beobachten, die sich noch nicht abgeschlossen hat und deshalb einer eindeutigen Beurteilung entzieht;*

20) indication of the stability, unchangeability of the trend: *Die Zahl (11,2 Millionen) hat sich nicht bedeutend verändert;*

21) indication of the frequency of occurrence of the analyzed phenomenon: *In jeder vierten Lebensgemeinschaft;*

22) information about the impact of quantitative indicators on the overall development trend: *Mit ansteigenden Geburtenzahlen beobachten wir die Abschwächung dieser Entwicklung;*

23) indication of variability: *Mehrfachnennungen sind zu beachten;*

24) indication of the source of more detailed information: *Gedruckte Ausgaben können per E-Mail (vertrieb@statistik.berlin.de), Fax (Fax-Nr. 030 1274-327) oder Post bestellt werden.*

After analyzing materials containing statistical data and statements created on their basis by native speakers, we identified means of expressing the semantics of comparison through statistical data. Comparison is a concept of equality, inequality, greater or lesser degree of quality, which is expressed at different linguistic levels; therefore, this category can be considered as functional-semantic. The core of the functional-semantic field of comparison consists of morphological means, primarily the comparative degree of adjectives and adverbs, such as: *Mehr als die Hälfte (62%) der Alleinerziehenden; Ein geringerer Anteil kommt durch die 12 bis 16 Jährigen zustande.* If the analyzed phenomenon exceeds others according to the selected criterion, the superlative degree of adjectives or adverbs may be used, such as:

Die deutschsprachige Schweiz zeigt den höchsten prozentualen Anteil dieser besonders leistungsschwachen Jugendlichen.

The periphery includes syntactic, lexical, word-formation and phraseological means. Among lexical means predominate:

(1) adjectives in attributive or predicative forms predominate: *ähnlich, identisch, gleich, niedrig, vergleichbar, verschieden*;

(2) verbs: *ähneln, differenzieren, entsprechen, folgen, führen, gleichen, gleichsetzen, sich erhöhen, unterscheiden, vergleichen, vorlegen, zunehmen*;

(3) nouns: *die Ähnlichkeit, die Gleichheit, der Vergleich, die Verschiedenheit*;

(4) adverbs: *anders, beinahe, ebenfalls, fast, genau, genug, gleichsam, halb, kaum, nahezu, ungefähr*;

(5) conjunctions: *wie, als, als ob, je ... um so, je desto, während*;

(6) participles: *wachsend, gravierend, vergleichend, abgerundet*, etc.

Word-formation means include word-formation elements *quasi-, super-, semi-, über-, -lang, -artig, -kurz*, for example: *übergroß, superkurz*.

Among syntactic means, the following predominate:

– complex sentences with comparative clauses with conjunctions *wie, sowie, als, je länger, um so, je ... desto*, such as: *Das sind 49 Prozent mehr, als es fünf Jahre zuvor gab*;

– complex sentences with temporal clauses with conjunctions *während, indessen, solange, als, wenn*, such as: *Während im Osten ..., ist es im Westen ...*;

– comparative constructions that have a three-component logical structure of comparison (subject, object and feature of comparison) with conjunctions *wie, als, als ob*, such as: *Die Arbeitslosenquote ausländischer Jugendlicher ist erheblich höher als die der deutschen Gleichaltrigen*.

Phraseological units are used rarely in the analyzed sources, mostly in journalistic texts. Phraseological comparisons consist of two parts: one part names an action, characteristic or feature of an action, while the other creates a comparative image. The phenomenon examined through statistics is compared across different territories. In Germany, comparisons are made between:

– the western and eastern parts (former Federal Republic of Germany and German Democratic Republic): *Diese Tendenzen betreffen gleichermaßen Ost- und Westdeutschland*;

– individual federal states: *Dieser Trend zeigt sich deutlich in vielen Bundesländern*.

In Austria and Switzerland, individual states, cantons or linguistic regions are compared: *Die drei Sprachregionen weisen fast ähnliche Anteile leistungsschwacher Jugendlicher auf, und zwar die deutsche Schweiz 12%, die französische Schweiz 11% und die italienische Schweiz 8%*. A comparison of the analyzed phenomenon across different countries of the European Union is possible, such as: *in den Mitgliedstaaten, EU-weit, im EU-Durchschnitt*. When comparing, it is possible to indicate coincidence, similarity of the analyzed phenomenon in different territories, or their difference: *Dieser Trend zeigt sich auch in anderen europäischen Ländern, es gibt allerdings Unterschiede in der Dynamik der Entwicklung*.

In the category of quantity, we distinguish a number of key oppositions: *singularity – plurality, collectivity – separateness, countability – uncountability, precision – approximation, discreteness – non-discreteness*, such as:

– exact quantity: *... liegt heute bei 285 000; Die absolute Zahl*;

– approximate quantity: *rund 43% der Bevölkerung; etwa; ca. ...; fast 240 junge Menschen*.

Relations of approximate quantity are divided into relations with invariant meanings:

- plurality: *die Mehrzahl, die gnaze Menge*;
- assessment of indefinite quantity: *ein recht großer Prozentsatz der Jugendlichen*;
- approximation in the direction of increase: *fast jedes dritte Kind, mehr als fünf Prozent, über 83%, gut 20%*.
- approximation in the direction of decrease: *nur knapp 18 Prozent der Haushalte, weniger, als jeder sechste, mindestens ein Drittel*;
- total quantity: *insgesamt 15%, die Gesamtquote, die Gesamtausgaben*;
- average quantity: *die durchschnittliche Onlinezeit, im (Durch)schnitt*;
- fractional quantity, parts, percentages: *ein Viertel, immerhin noch 83%, knapp ein Viertel, fast doppelt so viele wie im Vorjahr, ein weiteres Achtel*;
- ratio of quantities: *die Hälfte davon, 506 Euro pro Bürger, ein Großteil, 22% der damals 35 Millionen Jugendlichen*;
- with simultaneous indication of small quantity: *nur sieben Prozent*.

Besides numerals, quantity can be expressed by:

- pronouns indicating reciprocity: *der andere, miteinander, beide*; singularity: *jeder*; totality: *viele, wenige*;
- nouns correlated with groups of living beings: *die Gruppe, die Menge*; objects: *der Satz*.

The linguistic characterization of statistical materials in German presented above serves as the basis for formulating tasks, constructing sentences, determining the range of lexical units and grammatical phenomena to be mastered in the process of developing foreign language speech using statistical data.

3. Principles of Compiling Exercises Using Statistical Data

Based on statistical materials, it is possible to create at least three different types of statements, namely: 1) statements containing complete information about the statistically conducted study and its results; 2) statements on the proposed problem with the use of statistical data, when not all statistical information is used, but only that which the student considers necessary to provide for solving the communicative task; 3) statements expressing students' attitudes toward the problem, the existence and relevance of which is evidenced by statistical information.

It is obvious that the most specific in terms of compiling tasks are exercises whose purpose is statements with complete verbalization of all structural components of statistical content. During the analysis of the structure of German statistical materials, 26 possible structural components were identified, which we reduced, taking into account the frequency of use and importance, to 9 language tasks and 18 speech tasks (see Table 1).

Let us illustrate everything said above with examples of exercises. Thus, students are asked to read the following text with statistical data:

Alleinerziehende sind der Definition der amtlichen Statistik folgend Mütter und Väter, die ohne Ehe- oder Lebenspartner mit Kindern in einem Haushalt zusammenleben. Im Jahr 2023 lebten in Deutschland 1,7 Millionen alleinerziehende Familien mit minderjährigen Kindern, das entspricht einem Anteil von 19,9 Prozent an allen 8,5 Millionen Familien mit Kindern unter 18 Jahren. Darunter sind 1,4 Millionen alleinerziehende Mütter (82,3%) und 301.000 alleinerziehende Väter (17,7%). 71,4 Prozent der alleinerziehenden Mütter und 87,1 Prozent der alleinerziehenden Väter sind erwerbstätig – jeweils etwas seltener als Mütter

Table 1

Language and Speech Tasks in Statements with Statistical Data

Language Tasks		Speech Tasks
1.	Name	the topic of the statistical study; the phenomenon measured by the indicator; the location where the phenomenon occurs; the basis for classification;
2.	Indicate	the time period within which the phenomenon is observed; the units of measurement in which the magnitude of the phenomenon is expressed; the characteristics of the trend (degree of expression, prevalence, predictability, stability, opposition, etc.); the uncertainty/incompleteness of the trend or the impossibility of drawing a conclusion about the development of the phenomenon; the source of more detailed information; the parameters of comparison
3.	Describe	the location where the phenomenon occurs; the current state of the phenomenon
4.	Report	information about the conducted study: when, by whom, in what form, on what basis the study was conducted
5.	Compare	the phenomena examined by statistics from different parameters
6.	Determine	the main trends in the development of the presented phenomenon
7.	Confirm	with facts the trends in the development of the phenomenon
8.	Explain	the reasons for such development of the phenomenon
9.	Express	an assumption about the further development of the phenomenon

und Väter in Paarfamilien (77 bzw. 93%). Allerdings sind alleinerziehende Mütter deutlich häufiger in Vollzeit erwerbstätig als Mütter in Paarfamilien (41,4% im Vergleich zu 31,1%), alleinerziehende Väter jedoch seltener (86,7%) als Väter in Paarfamilien (92%). Seit 2020 ist ein Rückgang der Erwerbstätigkeit alleinerziehender Mütter zu beobachten. Ein möglicher Grund dafür ist sicherlich die aktuelle Krise des Betreuungssystems für Kinder. Zudem trägt seit 2022 der Zuzug aus der Ukraine geflüchteter alleinerziehender Mütter, die nicht direkt einem Job nachgehen können, zu diesem Effekt bei.

Language exercises based on this text can be organized with several tasks, for example:

1. *Erzählt den Mitschülern über eine der Studien des Statistischen Bundesamts zum Mikrozensus* (Tell your classmates about one of the Federal Statistical Office's studies based on the microcensus data).

2. *Beweist euren Gesprächspartnern, dass immer mehr Jugendliche in Deutschland auf ein Zusammenleben mit beiden Elternteilen verzichten müssen* (Prove to your conversation partners that more and more young people in Germany have to do without living with both parents).

3. *Warum ist die gesunde Entwicklung von Kindern und Jugendlichen immer häufiger durch Lebensführung der Erwachsenen bedroht? Erklärt eure Meinung.* (Why is the healthy development of children and young people increasingly threatened by the lifestyle of adults? Explain your opinion).

4. *Wie verschiedene Untersuchungen belegen, ist die Entwicklung der betroffenen Kinder besonderen Risiken ausgesetzt. Nennt einige davon* (As various studies confirm, the development of affected children is exposed to particular risks. Name some of them).

The first task requires students to create a statement that contains the most complete information possible about the conducted study and its results. This task encourages students to use linguistic means and clichés necessary for verbalizing the structural components of statistical material. The second task requires students to create a statement that uses not all the information, but only what the student considers necessary to employ for solving a specific communicative task. The text with statistical data combined with the third task can be classified as content-semantic support, however, the text content does not contain a complete answer to the question posed. Single-parent families are only one of the factors affecting a child's development, therefore it is necessary to involve additional information about other social problems. This exercise allows weaker students to express themselves based on the text content, while for stronger students it serves as a stimulus for reflection, promotes the use of information from personal experience and other sources of information. In the fourth task, students are required to present their own reflections on the consequences of the problem, the existence of which is evidenced by the statistical information. Students do not directly use the text content. The text only serves to reveal the meaning of the concept “betroffene Kinder” (“children from single-parent families”) and shows the scale and urgency of the existing problem. This serves as a stimulus for speech and adds emotionality to students' statements.

Instead of a microtext, students can be offered a bar chart as support (see Fig. 1). Extracting information from a chart is a more complex process compared to extracting information from text, therefore it is advisable to use verbal supports – lexical units, language clichés, grammatical constructions.

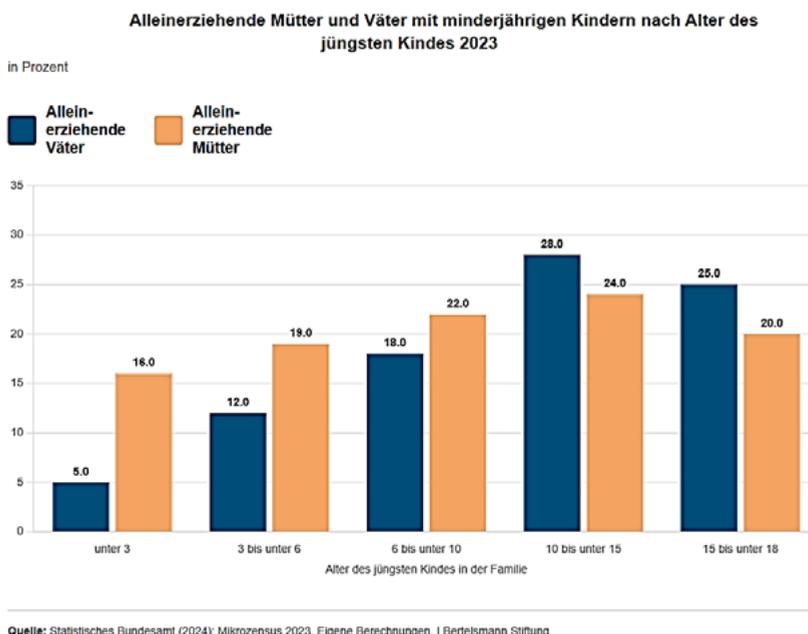


Fig. 1. Bar chart

Supports in tabular and graphic form require a higher level of perception and speech preparation from speakers. Decoding statistical data requires meta-subject knowledge and skills, as well as a higher level of development of mental operations. The chart does not contain conclusions about the main trends in the phenomenon's development. Students themselves must draw such conclusions by analyzing and summarizing the statistical information.

Based on the above, we consider it appropriate to create a hierarchy of exercises with statistical data by increasing the difficulty of various statements according to the following criteria: 1) presence or absence of support; 2) degree of statement elaboration; 3) ratio of productive and reproductive elements in the statement; 4) complexity of supports in terms of extracting the information necessary for the statement; 5) degree of the speaker's knowledge about the subject of the statement. Below are examples of exercise sets for students that were tested in the experiment.

I. Introductory word by the instructor: *Wie ist die heutige Jugend? Lassen Sie uns das moderne Jugendbild bestimmen! Dabei können uns objektive, authentische Daten helfen. Bilden Sie bitte Gruppen. Für jede Gruppe habe ich Informationen mit statistischen Angaben vorbereitet. Lesen Sie diese, um das Wichtigste zu erfassen.*

Task: *Teilt euren Mitschülern mit, welche Vorlieben, Beschäftigungen und Interessen der Jugendlichen in diesen Statistiken erwähnt werden. Welche davon können wir für unser Jugendbild verwenden?* (Tell your classmates which preferences, activities, and interests of young people are mentioned in these statistics. Which of these can we use for our youth portrait?)

To complete the exercise, students are divided into groups. Each group receives micro-texts of 4-5 sentences. All micro-texts are presented visually and serve as meaningful verbal supports. Students exchange information using the content of the micro-texts and language resources in their answers, without providing a complete retelling of the texts. The students' answers contain information about modern youth from German-speaking countries' passion for online shopping, downloading music, using mobile phones and the internet, and traveling. The collected information is briefly recorded on the board as mind maps titled 'Portrait of Modern Youth'.

II. Task: *Beweise deinem Gesprächspartner, dass heutige Teenager aktiv ihre Freizeit gestalten* (Prove to your conversation partner that today's teenagers actively shape their free time) (see Figure 2).

When completing this exercise, students are offered illustrative and verbal supports:

1. Introduction and general description: *Die Grafik/Das Diagramm/Die Statistik zeigt...* (The graph/diagram/statistics shows...); *Die vorliegende Grafik gibt Auskunft über...* (The present

Freizeitaktivitäten 2024 – Vergleich 2023
– täglich/mehrmals pro Woche –

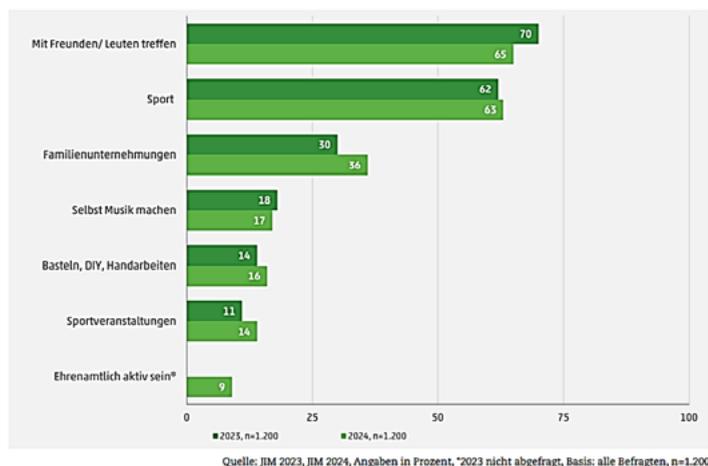


Fig. 2. Free-time activities 2024 (compared with 2023)

graph provides information about...); *Aus der Grafik geht hervor, dass...* (From the graph it becomes clear that...); *Das Schaubild stellt ... dar* (The chart illustrates/depicts...); *Die Daten stammen aus...* (The data comes from...); *Die Umfrage wurde ... durchgeführt* (The survey was conducted...).

2. Data comparison: *Im Vergleich zu 2023...* (In comparison to 2023...); *Verglichen mit dem Vorjahr...* (Compared to the previous year...); *Während 2023... waren, sind 2024...* (While in 2023... were, in 2024... are...); *Im Gegensatz zu...* (In contrast to...); *Sowohl... als auch...* (Both... and...)

3. Description of highest/lowest values: *An erster Stelle steht/liegt... mit...%* (In first place is... with...%); *Den höchsten Wert erreicht...* (The highest value is reached by...); *Am häufigsten/beliebtesten ist...* (Most common/popular is...); *Die Spitzenposition nimmt... ein* (The top position is held by...); *Den niedrigsten Wert hat...* (The lowest value has...); *Am wenigsten verbreitet ist...* (Least common/widespread is...).

4. Description of changes/trends: *Es zeigt sich ein Anstieg/Rückgang von...* (There is an increase/decrease of...); *Der Anteil ist gestiegen/gesunken um... Prozentpunkte* (The share has increased/decreased by... percentage points); *Eine Zunahme/Abnahme ist bei... zu verzeichnen* (An increase/decrease can be observed in...); *Es ist eine steigende/sinkende Tendenz erkennbar* (A rising/falling trend is recognizable); *Der Wert hat sich erhöht/verringert* (The value has increased/decreased); *Deutlich/Leicht gestiegen ist...* (Significantly/Slightly increased is...)

5. Description of stability: *Der Wert bleibt konstant/stabil/unverändert* (The value remains constant/stable/unchanged); *Keine wesentlichen Veränderungen zeigen sich bei...* (No significant changes are shown in...); *Fast gleichbleibend ist...* (Almost constant is...).

6. Specific figures: *Rund/Etwa/Ungefähr... Prozent* (Approximately... percent); *Knapp zwei Drittel/die Hälfte/ein Viertel* (Nearly two thirds/half/a quarter); *Mehr als die Hälfte* (More than half); *Fast drei Viertel* (Almost three quarters); *Genau/Exakt... Prozent* (Exactly ... percent).

7. Conclusions: *Zusammenfassend lässt sich sagen, dass ...* (In summary, it can be said that ...); *Insgesamt ist festzustellen, dass ...* (Overall, it should be noted that ...); *Daraus lässt sich schließen, dass ...* (From this it can be concluded that ...); *Auffällig ist, dass...* (It is striking/notable that...); *Bemerkenswert ist, dass...* (It is remarkable that ...).

Using the example of a diagram, students become familiar with the graphical form of presenting statistical information. In this case, the requirement to alternate different forms of presenting statistical information during the learning process is fulfilled, as well as the requirement for a gradual increase in the complexity of producing statements. The verbal support contains a description of part of the information presented in graphical form. Students are also provided with a list of lexical items that they can use when creating their own statements.

4. Experimental Verification of the Effectiveness of the Methodology of Using Statistical Data in LSP Teaching

The theoretical principles of this study were tested experimentally during the second semester of the 2024–2025 academic year among third- and fourth-year students at the Khmelnytsky National University whose first foreign language was English. We divided the students into control (CG) and experimental (EG) groups, ensuring that the level of German language proficiency was approximately the same in both groups, and conducted two experiments. The experimental groups consisted of 11 third-year and 12 fourth-year students, while the control groups included 12 third-year and 13 fourth-year students.

During the initial (diagnostic) stage of the experiment, we determined the baseline level of development of students' mental operations and speech skills in both the CG and EG. The final (control) experiment was aimed at assessing the effectiveness of developing students' skills in working with exercises based on statistical data and enhancing their cognitive operations. To achieve the objectives of the experiments, we used two diagnostic methodologies, as our goal was to measure both the level of development of students' mental operations and the degree of their speech skill formation in German-language communication.

Each test included five language exercises that were visually presented to the students. The participants' responses were recorded using a voice recorder. The analysis of the utterances was carried out based on the audio files and their transcripts. The distribution of the exercises according to the forms of presenting statistical information and the types of utterances is shown in Table 2 (see Table 2). Table 2 uses the following symbols to indicate the corresponding types of exercises: (*) – verbalization of all structural components of the statistical material; (**) – students' utterances on a proposed problem involving the use of statistical information; (***) – students' expression of their attitude toward the issue described by the statistical information. In the last column of Table 2, when indicating the number of exercises for creating different types of utterances, options in parentheses are used. This is because the distribution of exercises by type of utterance presents certain difficulties and largely depends on the speakers' interpretation of the exercise's purpose.

Table 2

Exercises Used in the Experiments

Description of Exercises		Experiments			
		diagnostic		control	
		third-year	fourth-year	third-year	fourth-year
Form of Presenting Statistical Information	Textual	2	2	2	2
	Tabular	1	1	1	1
	Graphical	2	2	2	2
Type of Utterance	*	1	1	1	1
	**	3	4 (3)	3	4 (3)
	***	1	0 (1)	1	0 (1)

During the control experiment, it was necessary to compare the levels of development of mental operations and German language skills in students of the CG and EG. Since a qualitative analysis of the results must be adequately reflected in quantitative indicators, without which it is impossible to compare the results obtained, it became necessary to develop criteria for evaluating the results of the experiment and their quantitative expression.

To establish the level of practical mastery of mental operations, a total of 20 indicators were identified, some of which indicate the level of practical mastery of only one mental operation, while others indicate several at once (see Table 3). To determine the level of practical mastery of mental operations by students based on a specific statement, the list of indicators needs to be specified. Only those indicators that could potentially be reflected in the students' statements in accordance with the task set are selected from it. The description of each indicator includes points awarded to students in brackets. Pluses indicate mental operations, the development of which is evidenced by a specific indicator. The maximum points for indicators are as follows: analysis – 8, synthesis – 8, comparison – 9, generalisation – 7, classification – 5.

Table 3

Indicators for assessing the level of development of students' mental operations

Indicators	Mental operations				
	Analysis	Synthesis	Comparison	Generalisation	Classification
1. Ability to identify (+1) meaningful parts of a message with statistical data and establish connections (+1) between them	+	+			
2. Ability to identify statements, determine methods and techniques of proof, evaluate their effectiveness (+1)	+	+			
3. Ability to identify structural components of a message with statistical data (+1)	+	+			
4. Ability to identify problematic issues (+1)	+	+			
5. Ability to recognise implicit statistical information (+1)	+	+			
6. Ability to critically and objectively evaluate statements, evidence or refutations, expressing opinion (+1)	+	+			
7. Ability to relate statistical information to personal experience (+1), to draw on additional information (+1)	+	+			
8. Number and accuracy of identified characteristics of comparable phenomena (all correct answers +1)			+		
9. Significance of identified characteristics (+1)	+	+	+	+	+
10. Hierarchization of characteristics when listing (+1)			+		+
11. Comparison of features with each other (+1)			+		+
12. Ability to find common features (+1)			+	+	+
13. Autonomy of the features found, their 'independence' from each other (+1)			+		
14. Formulation of generalised results of comparison (+1)			+	+	
15. Comparison according to a specific algorithm, presence of a system in the student's work (+1)			+		
16. Correct identification of generic concepts and specific distinctions (+1)			+	+	+
18. Absence of lists of characteristics, descriptions (+1), abstract, contradictory arguments (+1)				+	
19. Ability to distinguish the general from the particular and to summarise the particular under the general (+1)				+	
20. Ability to draw conclusions (+1)				+	

When analysing the results of the experiments, we first separately calculated and processed the data for each of the two diagnostic methods: the method for determining the level of development of students' mental operations and the method for determining the level of German language proficiency. The diagnostic method for determining the level of practical mastery of mental operations of analysis, synthesis, comparison, generalisation, and classification allowed us to obtain the average data presented in Table 4.

Table 4

Level of development of students' mental operations

Mental operations	Experiments	
	diagnostic	control
Analysis	32%	100%
Synthesis	32%	100%
Comparison	14%	73%
Generalisation	4%	80%
Classification	2%	61%

The diagnostic method for determining the level of development of German speech made it possible to obtain average data on the indicator of logicity, the coefficient of use of meaningful words, the coefficient of purposefulness, the coefficient of statistical content of speech, the coefficient of words reflecting the structure of statistical materials and the semantics of mental operations, and the productivity coefficient, presented in Table 5 (see Table 5).

Table 5

Level of development of German speech

№	Indicators and coefficients	CG		EG	
		diagnostic	control	diagnostic	control
1	Indicator of logicity	0,6	0,7	0,5	0,93
2	Coefficient of use of meaningful words	0,7	0,7	0,7	0,9
3	Coefficient of purposefulness	0,2	0,3	0,2	0,7
4	Coefficient of statistical content of speech	0,5	0,5	0,5	0,6
5	Coefficient of words reflecting the structure of statistical materials and the semantics of mental operations	0,01	0,01	0,02	0,3
6	Productivity coefficient	0,5	0,6	0,6	0,9

Separately processed data from two diagnostic methods at the final stage of analysis were compared, which also provided material for qualitative interpretation of the results of the main experiment.

5. Conclusions

The comparative analysis of data from the control and experimental groups confirms the effectiveness of the proposed methodology and leads to the following conclusions:

1. Level of Practical Mastery of Mental Operations. The ascertaining experiment revealed a low level of practical mastery of mental operations such as analysis, synthesis, comparison, generalization, and classification across all groups. The numerical data obtained showed that at the beginning of the experiment, most students possessed only rudimentary ideas about the essence of these operations and were practically unable to perform them. Students made errors when identifying essential features of analyzed, compared, and classified objects and phenomena, incorrectly chose the basis for comparison and classification, and performed comparisons based on an insufficient number of similarities or differences. Students' statements lacked or violated the sequence in identifying similarities and differences, and generalized

results of mental operations were absent or incorrectly formulated. Most statements represented reading out or retelling numerical information from texts or diagrams; information selection was conducted haphazardly, without considering the hierarchy of objects and phenomena or their importance for conducting mental operations and implementing speech tasks. Some students, when selecting statistical information from supports, proceeded from the linguistic simplicity of this information. Thus, fragments of statistical information containing internationalisms, simple whole numbers, and lexical units that posed no difficulties in terms of grammar and phonetics enjoyed great popularity.

Comparison of the numerical data from the ascertaining experiment revealed a small gap between the results of third- and fourth-year students. Fourth-year students on average demonstrated a higher level of practical mastery of mental operations. This indicates that experience in performing mental operations accumulates with age. However, the observed gap is not significant enough to conclude that students will eventually achieve a high level of mastery of mental operations over time without targeted work to improve this level.

During the control experiment, the level of practical mastery of mental operations in the experimental group (EG) increased significantly. Students began to approach the selection of information, the sequence of its presentation, and conclusions more thoughtfully. Familiarizing students with samples and algorithms for performing mental operations, sequential practice of individual components of mental operations, and their training based on algorithms and tasks contributed to the fact that by the end of the experiment, most EG students achieved a high level of practical mastery of mental operations. The results of control group (CG) students remained without significant changes.

2. Level of Development of Students' Speech Skills. When analyzing the level of German speech development, the position that skills represent an integrative set of many interrelated and mutually conditioning qualities was taken into account. Considering this, the level of development of individual qualities of speech skills does not provide a sufficiently complete and objective assessment of a speaker's speech abilities.

The coefficient of content word usage shows minimal growth tendency. The difference between data obtained at the ascertaining and control experiment stages is insignificant. The overwhelming majority of CG students demonstrated an inability to consistently develop thoughts. Their statements were dominated by incomplete phrases, word repetitions, verbal and intonational incompleteness, and absence of logical emphasis. All this indicates insufficient formation of speech mechanisms, slow pace of speech processes, and low level of speech skill dynamics.

The logic indicator increased due to a reduction in instances of logic violations. EG students developed the ability to develop thoughts smoothly and logically. Their statements showed fewer repetitions and returns to what was said, and illogical conclusions almost disappeared. At the ascertaining experiment stage, CG students demonstrated an inability to logically arrange structural components of statistical material and complete their statements with logical conclusions.

The purposefulness coefficient increased noticeably in the EG. For students to be able to purposefully transfer native language speech skills to German communication situations, it was sufficient to draw their attention to the presence of a speech task and the necessity of subordinating what was said to it. From EG students' statements, it is noticeable that they tried to choose content appropriate to the task and adequate means of expression. Their statements contained fewer intonationally incomplete phrases, and the number of statements without summarizing phrases decreased.

The development of senior students' speech skills through the technology of using statistical data created conditions for students to pay attention to the purpose of their speech actions. This coefficient did not reach the highest level for all students; however, EG students' ability to speak purposefully either underwent further development or remained at the previous level if the coefficient equaled one at the ascertaining experiment stage. Conversely, CG students' statements showed their inability to subordinate statistical data to tasks and speak according to task requirements. CG students' statements contained many non-purposeful phrases; students forgot about the task and at the conclusion formation stage completed statements with illogical conclusions.

The increase in the coefficient of statistical content richness of statements indicates that statements are more persuasive, have better impact on interlocutors, and demonstrate implementation of speech tasks. However, an important role is played not so much by the presence of statistical information as by its relevance and correspondence to the task being solved. Many students during the ascertaining experiment received quite high results for this coefficient; however, this did not ensure high quality of their statements. Phrases through which subjects conveyed statistical content were uniform, completely or partially taken from supports (low statement productivity coefficient), did not contribute to solving the assigned task (low purposefulness coefficient). These phrases were often perceived by interlocutors as superfluous (low logic indicator data). Conversely, some control experiment statements that did not have a high coefficient of statistical content richness were successful because more statistics were not needed for task implementation. Thus, when interpreting data obtained from the coefficient of statistical content richness of statements, we paid attention not only or so much to the numbers as to the correspondence of the specific weight of statistical data necessary for task implementation to ensure optimal impact on the interlocutor. Overall, it can be said that during the experiment in the EG, it was not the number of phrases conveying statistical content that increased, but their "quality".

The coefficient of words reflecting the structure of statistical data and semantics of mental operations increased noticeably in the EG. During the ascertaining experiment, students practically did not possess lexical units of statistical semantics. In phrases conveying statistical content, few words taken from texts and diagrams were present, or they were absent altogether or used inappropriately according to German language norms. Thanks to targeted teaching of speech using statistical data, primarily through familiarization with algorithms for performing mental operations and using lexical units with quantitative meaning that we identified, EG students developed their ability to use these lexical units in speech. EG students' statements at the final stage of the experiment, as before, were characterized by minimal use of words with quantity semantics.

The statement productivity coefficient was difficult to establish because transfer of language material from tasks and supports was observed. In a significant number of statements, students resorted to direct enumeration of statistical material content regardless of the task. When statistical information was presented in textual form, students read out lexical units and even entire sentences from supports. If statistical information was presented in tabular or graphic form, students tried to format the numbers from tables and diagrams into uniform sentences. At the final stage of the experiment, EG students' statements were characterized by a high productivity coefficient. This indicates growth in students' ability to independently combine words according to speech needs.

Analysis of experiment results led to the following conclusions: Regarding the level of development of students' speech skills and the level of practical mastery of mental operations,

the EG shows a growth tendency in analyzed coefficients and indicators. The ability of students in these groups to perform mental operations and express themselves purposefully, logically, productively, operatively, and with statistical content richness received further development. In the CG, analyzed coefficients and indicators on average did not undergo significant changes. This indicates that the technology we developed increases the level of practical mastery of mental operations and the level of speech skill development.

The results achieved in both years (3rd and 4th) are almost identical, meaning the applied technology is effective regardless of the language material on which it was tested. The gap between the highest and lowest control experiment results is smaller compared to the ascertaining experiment.

According to most criteria, students who showed the worst results in the ascertaining experiment made the greatest progress compared to the pre-experimental level. This indicates that the technology we developed creates conditions for activating students' potential speech capabilities. Weak students who require special work to develop their speech have the greatest reserves.

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DISCURSIVE PERSPECTIVE ON THE USE OF SENSORY MODI IN SHAPING RESPONSIBLE MEDIA REALITY

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Summary

The article offers a theoretical investigation of the transformations within media reality, with particular emphasis on the role of sensory cultural practices and the expansion of algorithmically driven media technologies. The central concern is a conceptual reorientation in meaning-making: from the static representation of meanings to their dynamic modeling, realized through the synthesis of visual, auditory, chromatic, and other sensory modi. Here, «modi» are understood as sensory dimensions – such as sight, hearing, chromatic», and related perceptual registers – through which sensory experience materializes in the digital media sphere. Methodologically, the study rests on the interdisciplinary integration of cultural-semiotic, cognitive-perceptual, and media-technological approaches. This framework enables the interpretation of sensory modi as semiotic systems that acquire functional significance within digital communication environments. Special attention is given to the analysis of practices of sensory activation of audiences triggered by media stimuli, especially in contexts shaped by artificial intelligence and automated algorithmic systems. The findings underscore the necessity of conceptualizing media not merely as channels of information transmission but as generative environments in which collective identity, cultural memory, and ethical orientations are constituted.

Key words: media reality, sense creation, media technologies, artificial intelligence, media triggers, cultural identity and memory, media space.

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1. Introduction

For decades, media were primarily conceived as instruments of passive reproduction of objective reality – devices for recording, representing, and transmitting information. With the rise of digital platforms governed by algorithmic infrastructures, however, this function has undergone a fundamental reorientation: media are increasingly understood as active agents in modelling the world. Within this framework, media reality appears as a multidimensional structure of perception and meaning-making that not only organizes information flows but also shapes collective modi of seeing, symbolic identification, and affective engagement. Its architecture is informed not only by technological mechanisms of selection but also by cultural practices, in which images, sounds, colours, language, and memetic patterns are synthesized into recognizable narratives that crystallize perceptions of social reality. Contemporary domains such as art, fashion, gastronomy, and digital creativity no longer operate as autonomous spheres but converge into complex sensory assemblages that constitute a symbolic cartography of the world. Consequently, media cease to function as mere conduits of transmission and instead emerge as generative environments for the production of meaning – reflecting not

only technological change but also an ontological reconfiguration of communication, culture, and identity. This shift underscores the urgency of advancing new mediological frameworks – capable not only of analyzing the structural dimensions of digital environments but also of elucidating the symbolic and perceptual mechanisms of sense-making, including visual codes, chromatic patterns, sonic markers, and verbal modi as instruments of algorithmic articulation of cultural reality.

This redefinition of meaning-making corresponds to profound changes in communicative structures and patterns of media consumption. Current trends reveal a transition from centralized to fragmented models of engagement, from linear reception to interactive participation, and from analog experience to immersive digital involvement. A telling indicator of this transition is the growing dominance of social media as the primary news source for 84% of Ukrainians in 2024, contrasted with the sharp decline in trust in television – from 85% in 2015 to 30% in 2024 (*Trapeznikova, 2024*). What is at stake here is not simply a reallocation of broadcasting channels but a reconfiguration of communicative reality itself, shaped by algorithmic personalization, emotional hyperstimulation, and intensified sensory interaction. Mediology, as an interdisciplinary research framework, offers the conceptual tools to trace how innovations such as artificial intelligence not only transform the technical conditions of circulation but also redefine the user's role – from recipient to co-creator, from spectator to active constructor of meaning. Digital media reality thus emerges as a living, dynamic entity evolving in tandem with cultural and technological transformations, positioning itself as a central focus of mediological inquiry.

The problematic core of this study lies in the insufficient theoretical reflection on the transformation of media reality at the intersection of sensory cultural practices and digital technologies. Addressing this lacuna requires a comprehensive account of the paradigm shift in sense-making – from representation to modelling – within the interplay of cultural codes and technological innovations that jointly shape the architectonics of media space, influencing collective perception, identity, and communication.

Accordingly, the purpose of this study is to theorize the transformation of contemporary media reality driven by the interaction of sensory cultural practices and digital technologies, with particular emphasis on rethinking sense-making as a process of active construction rather than mere reflection of reality. The object of the study is the cultural transformation of media space, while its subject is the mechanism of sense-making in the digital environment, especially the role of visual, auditory, and verbal markers in shaping resilient cultural narratives and shared identity. Methodologically, the research employs an interdisciplinary matrix integrating cultural-semiotic, cognitive-perceptual, and media-technological approaches. This framework enables a multi-layered analysis: content analysis identifies recurring symbolic markers – memetic structures, chromatic patterns, acoustic signals, narrative configurations – characteristic of the digital milieu; semiotic analysis interprets sensory modi as sign systems through which image, sound, and language operate as mediators of cultural imagination; the cognitive-perceptual approach examines immersion mechanisms in augmented and virtual media environments, with a focus on presence, affective involvement, and sensory coordination. Finally, case study analysis traces transformations in communicative formats and sense-making under conditions of technological innovation.

2. The Evolution of Media Reality: From Representation to Simulation

A deeper understanding of media reality – a distinct form of constructed reality arising from human interaction with media – requires tracing the evolution of the concept of “media”

itself. Entering scholarly discourse in the United States in the 1930s–1940s, the concept was shaped by the seminal works of H. Lasswell, P. Lazarsfeld, J. Clapper, and E. Katz, who primarily framed media as channels for the transmission of facts and the construction of simplified representations of reality – a «pseudo-environment» (*Lasswell, 1948*). A decisive shift came with M. McLuhan, who, within the technocultural discourse, theorized media as technological extensions of human faculties and formulated the influential thesis, «the medium is the message» (*McLuhan, 1964*). With the expanding role of visual technologies, digital platforms, and entertainment industries, media have increasingly been conceptualized not as neutral conveyors of information but as socio-cultural mechanisms that actively structure media reality – shaping perception, framing interpretation, and encoding the world in symbolic configurations (*Couldry & Hepp, 2017*).

Within post-structuralist frameworks, this transformation is reinterpreted as a turn toward the discursive nature of media, wherein they do not merely transmit but actively produce reality through language, imagery, sound, and multimodal signification. J. Baudrillard radicalized this perspective through the concept of simulation, situating media reality within a regime of signs where second-order representations displace primary referents, destabilizing the relationship between sign and reality (*Baudrillard, 1981*). In this sense, media reality becomes not a reflection of the external world but a self-sufficient, enclosed system of semantic constructs, generating an ontology that is not experiential but simulative. The digital environment intensifies this development: sign structures and communicative units are increasingly governed by algorithmic logics of selection, combination, and representation. Processes of algorithmization, automated data sorting, multimodal presentation, and visual programming contribute to a configuration of media reality in which, as L. Manovich observes, codified reality – regulated by pre-structured rules – displaces direct experience of the world, giving rise to an autonomous media ontology (*Manovich, 2013*).

This growing complexity of media reality – shaped by algorithmic processes, semiotic constructs, and sensory intensification – creates the need for an integrative framework capable of synthesizing diverse theoretical approaches. Traditional domains of inquiry – semiotics, cognitive science, the sociology of culture, and the philosophy of technology – while analytically valuable, remain fragmented in their capacity to capture the interplay between sign systems, technological infrastructures, sensory modi, and cultural imagination in the digital environment. In response, medialogy is emerging as a comprehensive interdisciplinary paradigm that unites methodologies from media theory, cultural studies, semiotics, philosophy of language, and the social and cognitive sciences to provide a holistic analysis of digital cultural phenomena. Rather than limiting itself to media content or technologies, medialogy investigates mechanisms of sense-making, perceptual infrastructures, models of influence, and modes of cultural imagination shaped through human–media interaction.

Within this framework, sensory modi assume a central role. In the digital context, they function not merely as channels of information but as cultural instruments of modelling – transmitting values, identities, and emotional orientations. Visual imagery, dominant chromatic schemes, typography, sound design, vocal intonation, and textual affect operate as semiotic markers of cultural recognition and symbolic affiliation (*Kress & van Leeuwen, 2020*). By activating affective perception and cognitive integration, these elements immerse audiences in narrative structures and foster identification with specific socio-cultural meanings. In this way, symbolic codes – images, colours, sounds, metaphors – cease to be mere aesthetic embellishments and instead become instruments of collective identification, consolidating shared meanings and structuring generalized models of reality (*Hall, 1997*). Accordingly, sensory modi

should be conceptualized as culturally conditioned parameters of mediation that structure perception, shape affective responses, and co-constitute the ontology of digital media reality.

3. The Role of Visual, Auditory, and Iconic Modi in Mediating Contemporary Cultural Representations

Colour, as a primary sensory modus, serves not merely an aesthetic function but also a deeply embedded socio-cultural and psychophysiological role, encoding markers of belonging, emotional states, and identity matrices. Ritual practices in archaic cultures attest to its capacity to delineate social roles and sacred boundaries, while contemporary colour therapy conceptualises it as an instrument of affective regulation and cognitive stimulation (*Lüscher, 1950; Babbitt, 1878; Braem, 2020*). Neuroaesthetic research further demonstrates that colour, as a visual stimulus, exerts significant psychophysiological effects, eliciting differentiated emotional and cognitive responses: warm hues enhance attention and creative engagement, cool tones promote emotional equilibrium, and high-intensity dark shades may induce affective inertia (*Ramachandran & Hirstein, 1999; Zeki, 1999*). Within digital visual environments, these properties acquire heightened significance: algorithmic encoding of colour in interface design, branding, and social media transforms it into a tool of affective orientation and symbolic cohesion. Calibrating colour palettes to the semiotic expectations of target audiences enables the creation of intuitively recognisable identities and facilitates emotionally immersive engagement with narratives conveying communal values.

An illustrative example of visual semiotics is the Ukraine NOW brand, where the yellow-and-blue palette functions as a potent marker of national identity, constructing a visual metaphor for contemporary Ukraine – open, optimistic, and recognisable internationally. A parallel strategy is evident in the Be Brave Like Ukraine campaign, developed by Banda Agency with support from the Ministry of Digital Transformation and the Office of the President (2022). The campaign integrates modular typography inspired by Vasyl Yermilov's constructivist aesthetic with affectively resonant sonic patterns, reinforcing the visual message and immersing audiences in a polyphonic narrative (*Panchenko, 2022*). The synesthetic interplay of colour, form, and sound constructs a multifaceted national image – brave, resilient, and contemporary – capable of conveying profound cultural meanings.

This sensory integration highlights the centrality of auditory modalities in narrative sense-making. Survey results (https://docs.google.com/forms/d/1i8RLrN19htT820hbasHxG_sqKkDhC1UFLKelt-E_c8/edit?hl=uk#responses) indicate that Ukrainian folk singing and traditional instrumental ensembles (bandura, trembita, sopilka) are most strongly associated with symbolic representations of national culture. Deeply embedded in collective memory and cultural imagination, they operate as foundational auditory codes activating mechanisms of socio-cultural identification. Contemporary Ukrainian music, particularly the work of Okean Elzy, is also valued for synthesising traditional motifs with modernist aesthetics, whereas popular music performers (e.g., Alyona Alyona, Jerry Heil) receive comparatively lower recognition, reflecting a perceived dissonance between commercial production and culturally authentic emotional resonance. Natural environmental sounds (e.g., rustling grass, birdsong) were marginally represented, indicating a reduced role in the collective perception of cultural symbols. Music thus functions as a multidimensional cognitive and affective resource, initiating neuropsychological integration and social synchronisation. Neuroscientific evidence further supports genre-specific effects: classical and slow compositions reduce cortisol and facilitate emotional regulation (*Tomatis, 1983*), while dynamic rhythms enhance cognitive engagement and creativity.

In digital contexts, auditory modalities increasingly serve as instruments of cultural coding and mediation, strengthening social cohesion and shaping shared imaginaries (Cross, 2001), while operating synergistically with other sensory modes, particularly the iconic, which structures cultural identity through visual recognisability, symbolic density, and emotional immediacy.

Within the expanding algorithmic complexity of media reality, the figurative (iconic) modus emerges as a pivotal factor in fostering recognisable cultural subjects and integrating them into global information networks. Visual archetypes – familiar images, landscapes, and traditional motifs – act as consolidating symbols, activating deep psycho-emotional responses and promoting socio-cultural cohesion. The animated character Mavka (*Mavka: The Forest Song*; dir. O. Malamuzh & O. Ruban, 2023) exemplifies this dynamic. Rooted in Lesya Ukrainka's canonical poem, Mavka retains traditional attributes – affinity with nature, forest magic, and the pursuit of harmony – while undergoing transformation via digital media: enriched 3D graphics, nuanced colour palettes, emotive music, and compelling narrative structures. Its pervasive presence across advertisements, merchandise, trailers, and social media has established Mavka as a narrative nexus that both captivates audiences and articulates a revitalised Ukrainian identity, enhancing recognition and acceptance within the collective consciousness. Furthermore, critical discussion of the animation style, including Disney influences, has fostered reassessment of national animation traditions and encouraged public discourse on cultural self-determination, exemplifying the digital mediatization of literary and artistic heritage and embedding national archetypes within collective cultural imagination.

4. Artificial Intelligence and Sensory Modi in the Construction of Collective Identity

This example illustrates not only the profound influence of sensory modi in the formation of social narratives aimed at cultivating patriotic consciousness and collective identity but also underscores the integration of advanced machine learning methodologies that expand the potential for generating visual content while maintaining cultural relevance and adaptability across diverse audiences and contexts. Within the media industry – particularly in mass production – the implementation of automated techniques for analyzing, classifying, and generating visual material enables the detection of complex patterns within images, videos, and animations. This capacity facilitates not only the identification of discrete objects but also the creation of coherent visual narratives imbued with culturally resonant semiotic markers, particularly through the deployment of technologies such as:

- Deep Neural Networks (DNNs), which, beyond their instrumental functions, exert a significant impact on the formation of collective representations. By analyzing recurring visual patterns in user behavior data and generating imagery aligned with cultural identity frameworks, DNNs produce novel visual forms while fundamentally transforming principles of image presentation within digital environments (*LeCun, Bengio, & Hinton, 2015*).

- Convolutional Neural Networks (CNNs), pivotal in contemporary mediological practices, enable automated content analysis in journalism, including the detection of violence, identification of manipulated images, and recognition of disinformation patterns. They support facial recognition for verification of public figures, enhance visual search capabilities in photo and video archives to optimize editorial workflows, and, when combined with generative adversarial networks, facilitate interactive applications such as adaptive advertising and augmented reality. CNNs further underpin media monitoring systems critical for security, regulatory compliance, and social dynamics analysis (*Krizhevsky, Sutskever, & Hinton, 2017*).

- Generative Adversarial Networks (GANs), transformative in their ability to synthesize highly realistic visual imagery, find applications across cinema, advertising, and video gaming. Specific functions include deepfake modeling, digital rejuvenation of performers, stylistic and aesthetic reconstruction, and narrative visualization in digital art. GANs also contribute to automated production of emotionally resonant advertising, restoration of cultural heritage from limited datasets, and mediological practices aimed at patriotic imagery, visual identity modeling, and embedding culturally marked meanings into communicative, educational, and branding platforms (*Goodfellow et al., 2014*).

- Transformers, originally developed for natural language processing, now underpin multimodal architectures that integrate visual, auditory, and textual inputs, facilitating contextualized narrative construction, automated video editing, speech-to-articulation synchronization, and personalized information delivery. These architectures ensure semantic coherence and open new avenues for cultural modeling and aesthetically dynamic content generation (*Dosovitskiy et al., 2021*).

These examples, however, represent only a subset of the extensive technological toolkit available for sensory content generation, which also includes Recurrent Neural Networks (RNNs), motion-capture-based automated rigging, stylization and style-transfer techniques, and interactive generative models capable of both enhancing and transforming visual imagery. Collectively, these technologies serve to increase visual complexity, elevate product quality, and automate routine stages of creative production. Nonetheless, despite their considerable potential, irresponsible or manipulative deployment may distort social processes of meaning-making. Rather than fostering cohesive collective identity, sensory outputs misaligned with intended narrative frameworks may elicit individualized affective responses, producing cognitive disorientation and potentially undermining the symbolic foundations of state-building and social cohesion.

5. Conclusions

The trends and conceptual frameworks outlined in this study illuminate profound transformations in the perception and construction of digital media reality, wherein sensory modes – operating as both cognitive and affective catalysts – are increasingly embedded within media practices through algorithmic mediation enabled by artificial intelligence. This paradigm shift reflects a movement away from linear models of communication toward a synesthetic, multimodal construction of collective experience, grounded in emotional engagement, neuropsychological activation, and culturally resonant meaning-making. Within this landscape, media function not merely as channels of information but as active constructors of identity, ethical frameworks, and strategic narratives.

In this context, mediology emerges as a metatheoretical platform that performs both analytical and normative functions: it not only maps the interplay between media, technologies, and sensory modes but also articulates a conceptual language for understanding these dynamics as an evolving process of knowledge generation, socio-cultural modelling, and experiential structuring. The increasing role of artificial intelligence in producing sensory content opens expansive avenues for interdisciplinary inquiry, particularly in exploring the encoding, adaptation, and transformation of aesthetic, affective, and cognitive patterns within culturally specific contexts.

Consequently, it becomes imperative to develop ethical protocols that govern the interaction between technological systems and the public sphere of meaning-making, to ensure transparency in algorithmic influence, and to establish independent oversight mechanisms

within digital environments. Ultimately, the sustainable development of the national media system, the advancement of media literacy, and the reinforcement of cultural resilience depend upon critical reflection and the responsible deployment of sensory modi as instruments of ethical communication. In this way, media can foster not only engagement and aesthetic experience but also the cultivation of collective understanding, shared values, and socially constructive imaginaries.

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THE HISTORICAL DEVELOPMENT OF ENGLISH: FROM OLD ENGLISH ROOTS TO A GLOBAL LINGUA FRANCA

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Summary

The article explores the historical development of the English language from its earliest Germanic origins to its present-day global status. English, a West Germanic language of the Indo-European family, has undergone profound phonetic, morphological, syntactic, and lexical transformations over more than fifteen centuries. The Old English period was characterized by a complex inflectional system and rich Germanic vocabulary. Contact with Latin during Christianization and with Old Norse during Viking invasions introduced significant lexical borrowings and simplified morphology. The Norman Conquest marked the beginning of the Middle English period, when French and Latin exerted strong influence on English vocabulary and style, and grammatical endings were gradually lost. By the 15th century, English re-emerged as a national language, particularly through the works of Geoffrey Chaucer. The Early Modern English period brought standardization, the Great Vowel Shift, and extensive lexical enrichment from Latin and Greek during the Renaissance. This was also the age of Shakespeare and the King James Bible, which established the foundation of modern literary English. The Late Modern period saw the spread of English through colonial expansion and globalization, resulting in numerous regional and national varieties. Today, English functions as a global lingua franca, used in science, business, technology, and international communication. Its development reflects a balance between Germanic roots and continuous adaptation to social, cultural, and technological change. The historical evolution of English demonstrates how linguistic flexibility and openness to borrowing have shaped it into the world's most influential language.

Key words: English language history, Old English, Middle English, Modern English, linguistic change, global language.

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1. Introduction

In the contemporary world, globalization, international communication, and the rapid exchange of information determine the cultural, educational, and scientific agendas of many countries. Knowledge of the English language, which has become a global lingua franca, is now a crucial tool for accessing education, participating in international collaboration, and engaging in professional and scientific activities. The increasing mobility of people, the development of global media, and the expansion of digital communication have highlighted the importance of understanding not only modern English but also its historical development, as this allows for a deeper comprehension of linguistic, cultural, and social processes shaping the language today.

The English language, as a member of the West Germanic branch of the Indo-European family, has a long and complex history spanning more than fifteen centuries. From the Old English period, through Middle English and Early Modern English, to Late Modern English,

the language has undergone profound phonetic, morphological, syntactic, and lexical changes influenced by historical events, social transformations, and contact with other languages. Understanding these historical processes is essential for linguists, philologists, and educators, as it provides insights into the evolution of English vocabulary, grammar, and usage.

Scholars such as David Crystal, A. C. Baugh, Thomas Cable, and Lynda Mugglestone have emphasized the significance of the historical development of English for both theoretical linguistics and practical applications, including language teaching, lexicography, and socio-linguistic studies (*Crystal, 2003; Baugh & Cable, 2013; Mugglestone, 2020*). Research in this field investigates not only the chronological stages of English but also the impact of historical events such as the Norman Conquest, the Renaissance, and British colonial expansion on the structure and global spread of the language.

2. Approaches to the Study of English Language History

The study of the history of the English language has been a central focus of philologists and linguists for over a century. Early research was shaped by the philological tradition, represented by H. Sweet and O. Jespersen, who provided detailed analyses of Old English grammar, phonetics, and the gradual simplification of English morphology. Their work established a foundation for tracing the development of English from its Old English roots to Modern English. A. Campbell's *Old English Grammar* (1959) further contributed to this line of inquiry by offering systematic descriptions of phonological and morphological patterns.

Later approaches emphasized lexical borrowing, phonological change, and sociocultural influences. C. Baugh and T. Cable (2013) examined the impact of external contacts, particularly the Scandinavian and Norman conquests, on vocabulary and syntax, while R. Stockwell and D. Minkova (2001) explored the role of sound change, especially the Great Vowel Shift, in shaping Early Modern English. Their findings highlight how both internal linguistic mechanisms and external historical events affected the evolution of English.

The sociolinguistic perspective adds another dimension, focusing on dialectal variation, standardization, and the influence of literacy. R. Lass (1999) and D. Crystal (2003, 2019) discuss English as a dynamic system shaped by social context, while T. Nevalainen and H. Raumolin-Brunberg (2003) investigate language change in Tudor and Stuart England through historical sociolinguistics. Similarly, S. Romaine (1998) emphasizes the interplay of culture, society, and language in the historical development of English.

Overall, the theoretical research suggests that the history of English is best understood through a multidisciplinary lens. Philological, structural, phonological, and sociolinguistic approaches together reveal how English transformed from a highly inflectional Old English system into a global language with simplified grammar, standardized forms, and immense lexical diversity. These complementary perspectives demonstrate the importance of combining linguistic analysis with historical, social, and cultural contexts in the study of English language history.

This article aims to analyze the main stages of the history of English, highlighting key linguistic changes and the factors that influenced them. It also considers the role of English as a global language today, examining the diversity of its national and international varieties. By exploring the historical foundations of English, the study seeks to provide a comprehensive understanding of how the language developed from a regional West Germanic dialect into a worldwide medium of communication, culture, and science.

3. The Old English Period

The English language belongs to the Germanic branch of the Indo-European family and ranks among the most widely used languages globally, particularly as a second language and as a medium of international communication (*Crystal, 2003*). Traditionally, scholars identify four principal historical stages in the development of English over the past 1,500 years: Old English (or Anglo-Saxon), Middle English, Early Modern English, and Modern English (*Baugh & Cable, 2002*).

The Old English period (approximately 450/449–1100/1066), also referred to as the Anglo-Saxon period, began when the Angles, Saxons, and Jutes migrated to Britain. They encountered the Celtic-speaking Britons and Gauls already inhabiting the island. Following a prolonged period of conflict, the settlers' Germanic dialects prevailed, giving rise to Old English (originally Ænglisc, Anglisc, or Englisc) (*Mitchell & Robinson, 2007*). This language was spoken by the Anglo-Saxons and their descendants in what is now England and parts of southern and eastern Scotland. The terms Old English and Anglo-Saxon are generally used interchangeably. From a linguistic perspective, Old English is classified as a West Germanic language, closely related to Old Frisian and Old Saxon, and more akin to modern German and Dutch than to contemporary English (*Hogg, 1992*).

Structurally, Old English was a highly inflected language. It displayed five grammatical cases (nominative, accusative, genitive, dative, and instrumental), three numbers (singular, dual, plural), and three genders (masculine, feminine, neuter). Statistical analysis of Old English texts, such as *Beowulf* and legal documents, shows that approximately 60–70% of nouns and pronouns retained full inflectional endings, while verb endings were somewhat more variable (*Hogg & Fulk, 2011*). This highlights the high degree of morphological productivity and complexity in the language. The dual number occurred only in first- and second-person pronouns to denote pairs. Adjectives, pronouns, and certain nouns agreed with nouns in case, number, and gender, while verbs agreed with their subjects in person and number. Similar to other inflected Indo-European languages such as Latin, Greek, or Sanskrit, Old English nouns followed several declensional patterns. Verbs were divided into nine conjugational classes (seven “strong” and three “weak”) each with multiple subtypes, and the language contained numerous irregular verbs (*Hogg & Fulk, 2011*). Compared with Latin, however, Old English had only two tenses (present and past) and lacked a synthetic passive form (*Mitchell & Robinson, 2007*).

Grammatical gender in Old English was not based on biological sex. For instance, *sēo sunne* (“the sun”) was feminine, *se mōna* (“the moon”) masculine, and *þæt wīf* (“the woman”) neuter, a system comparable to that of modern German (*die Sonne, der Mond, das Weib*) (*Lass, 1999*). By the late seventh century, the Anglo-Saxon conquest of Britain had largely concluded. The Germanic settlers – Angles, Saxons, and Jutes – migrated from continental regions between the Elbe and Oder rivers, displacing the native Celtic and Romano-Celtic populations westward to Wales and Ireland. As Germanic political and cultural dominance solidified, so too did the position of the Anglo-Saxon language and literature (*Crystal, 2019*). Concurrently, Latin, preserved by the Church, re-emerged as the language of religion, scholarship, and administration following the Christianization of the Anglo-Saxon kingdoms (*Baugh & Cable, 2013*).

Subsequent Viking incursions in the ninth and tenth centuries further reinforced the Germanic character of English. Large numbers of Scandinavians settled along the eastern coasts of Britain, introducing lexical and grammatical elements from Old Norse (*Crystal, 2019*). Around the same period, other Viking groups established themselves in Normandy (northern France). Although they rapidly adopted the local Old Norman dialect, a Romance language descended

from Latin, its phonological system retained strong Germanic features (*Durkin, 2014*). Consequently, Old Norman developed distinctive written and spoken varieties. While Latin remained the language of religion, learning, and formal discourse, Old Norman emerged as the vernacular of administration, trade, and literature in Normandy. By the mid-eleventh century, the Norman nobility had become thoroughly Romanized in language and culture (*Lass, 1999*).

The Old English period is also associated with the composition of *Beowulf*, the anonymous epic poem widely regarded as the most significant literary monument of Anglo-Saxon culture (*Mitchell & Robinson, 2007*). In sum, Old English (or Anglo-Saxon) evolved from the dialects of the Angles, Saxons, Jutes, and Frisians who settled in Britain. It featured a rich vowel and diphthongal system, palatalized consonants, relatively free word order, clear morphological distinctions among word classes, and highly productive processes of affixation and compounding. Its lexicon was predominantly Germanic, with limited borrowings from Celtic and Latin. Following the Danish conquest of England in 1017, numerous Scandinavian terms, especially place names, military terminology, and everyday vocabulary, entered the English language (*Durkin, 2014; Townend, 2002*).

4. The Middle English Period

The Middle English period extends roughly from 1100/1066 to 1500 and began following the Norman Conquest of England in 1066, when William, Duke of Normandy, defeated King Harold at the Battle of Hastings and established Norman rule. This political transformation produced far-reaching linguistic and cultural consequences (*Baugh & Cable, 2013; Crystal, 2003*).

The Normans, originally of Scandinavian descent, had settled in northern France and adopted a variety of Old French known as Norman French. After the conquest, this dialect became the principal language of the royal court, administration, law, and the ruling aristocracy, whereas Latin continued to serve as the language of the Church, scholarship, and education. The majority of the population, however, persisted in speaking English (*Lass, 1999; Durkin, 2014*). Consequently, medieval England was characterized by a trilingual linguistic environment: French dominated government and the upper classes, Latin remained central to religion and learning, and English functioned as the vernacular of the common people. Over time, intensive contact among these languages resulted in substantial lexical borrowing. English incorporated a large number of French words – particularly in the semantic domains of law, politics, religion, art, and fashion – while its core everyday vocabulary retained a predominantly Germanic character.

During this period, English grammar underwent radical simplification. The complex inflectional morphology of Old English eroded gradually: nominal case endings disappeared (apart from the possessive -'s and plural -s), and grammatical gender was replaced by natural gender. As morphological marking declined, word order became increasingly fixed, serving as the primary indicator of syntactic relationships (*Lass, 1999; Hogg & Denison, 2011*). At the same time, Middle English exhibited pronounced dialectal variation, including Northern, Southern, Kentish, and Midland varieties. Among these, the East Midland dialect emerged as the most influential and ultimately formed the basis of what became Standard English. Corpus studies indicate that by the 14th century, the East Midland dialect accounted for over 50% of surviving administrative and literary texts in England (*Blake, 1996*). This quantitative evidence supports its role in shaping the emerging standard language. The expansion of commerce and England's growing participation in international trade elevated London to the status of the country's political, cultural, and economic center during the fourteenth century. The London dialect,

absorbing features from surrounding regions, gradually evolved into the linguistic foundation of the emerging national standard (*Blake, 1996*).

The literary flourishing of this era is epitomized by Geoffrey Chaucer's *The Canterbury Tales* (late fourteenth century), a work that reflects the increasing prestige of English as a literary medium. By the late fourteenth and early fifteenth centuries, English had begun to replace French and Latin in the domains of government, literature, and culture (*Crystal, 2019*). The 1362 Statute of Pleading, which established English as the official language of Parliament, symbolized this shift and marked the beginning of English's return to institutional authority (*Clanchy, 2013*).

In summary, the Middle English period was characterized by extensive grammatical simplification and lexical enrichment. While maintaining its Germanic core, English absorbed thousands of French and Latin elements, thereby laying the structural and lexical foundations for the emergence of the modern English language (*Blake, 1996; Lass, 1999*).

5. Early Modern English

The history of Modern English is conventionally divided into two main stages. The first, Early Modern English (approximately 1500–1650), corresponds to the Renaissance and is often referred to as Renaissance English or the language of Shakespeare. The second stage, Late Modern English (from 1650 to the present), is sometimes termed Present-Day English.

The Early Modern English period was a time of profound linguistic and socio-cultural transformation. It coincided with the decline of feudalism, the rise of capitalism, and the emergence of national consciousness. During this era, English consolidated its status as a national language, closely linked to the development of a unified English identity (*Baugh & Cable, 2013: 160*). Following the Norman Conquest of 1066, much of the Anglo-Saxon nobility was replaced by Norman rulers who spoke a Romance variety of Old French. Despite their shared Germanic ancestry, the Normans retained their language, which carried high prestige throughout Europe as a *lingua franca* among merchants, sailors, and crusaders (*Crystal, 2019: 102*). Because the Norman elite constituted only a small portion of the total population – approximately 20,000 individuals, or 1.3% – their language never supplanted native English dialects, but it profoundly influenced the cultural and linguistic landscape of England.

By the late eleventh century, Anglo-Norman French had become the dominant language of the court, administration, law, and education, while Latin maintained its traditional authority in ecclesiastical and scholarly contexts (*Blake, 1996*). English, in contrast, continued as the vernacular of everyday communication. This trilingual coexistence rendered medieval England one of the most linguistically complex societies in Europe (*Brinton & Arnovick, 2017: 210*). Over subsequent centuries, English virtually disappeared from written use: for more than two hundred years, most legal, administrative, and literary texts were produced in Anglo-Norman. When English reappeared as a written language, it often did so through translations from French sources, adopting a vast array of Romance-derived vocabulary. Rather than resisting foreign influence, English writers actively embraced lexical borrowing, leading to a remarkable expansion of the lexicon (*Hogg & Denison, 2011*).

By the Renaissance, English had incorporated extensive vocabulary from French, Latin, Greek, Italian, and Spanish. This period was also characterized by the Great Vowel Shift, a major phonological reorganization affecting the pronunciation of long vowels (*Lass, 1999*). As a result, spelling and pronunciation diverged sharply. English orthography, shaped by both Old English and French conventions, became inconsistent and largely traditional rather than

phonetic. Consequently, English spelling to this day requires memorization rather than phonemic decoding (*Mugglestone, 2020: 58*).

In terms of morphosyntax, Early Modern English experienced significant simplification. Inflectional endings of nouns, adjectives, and verbs largely disappeared; the plural -s became the dominant marker, adjectives lost gender and case distinctions, and the earlier system of strong and weak verbs was reduced in scope. Syntax increasingly assumed the grammatical functions once expressed by morphology, and the basic word order of Modern English was established.

Despite this simplification, English vocabulary expanded enormously. Contemporary estimates suggest that approximately 57% of English words derive from Romance sources, primarily French and Latin (*Durkin, 2014*). However, analysis of 1,000 most common English words shows that only 15% are of Romance origin, highlighting the persistence of a Germanic core despite heavy borrowing (*Durkin, 2014*). This distribution underscores the hybrid nature of English: a Germanic grammatical and lexical core enriched by Romance borrowings that enhance stylistic range, abstraction, and nuance. The Early Modern period also witnessed the flourishing of English literature and intellectual life, exemplified by the works of William Shakespeare, the King James Bible, and the first scientific and philosophical writings in English (*Brinton & Arnovick, 2017*). By the mid-seventeenth century, English had become firmly established as the national language of England.

6. Late Modern English

The Late Modern English period (from c. 1650 to the present), also known as Present-Day English, represents the final stage in the standardization of the language. During this era, English acquired its definitive grammatical and orthographic norms. The proliferation of printed literature, dictionaries, and grammar books contributed to codifying usage – examples include William Bullokar's *Brief Grammar of English* and Ben Jonson's *English Grammar* (*Mugglestone, 2020*). Linguists and grammarians of the period focused on establishing prescriptive norms and addressing inconsistencies in spelling, culminating in the major orthographic reforms of the eighteenth century (*Graddol, 2006*).

From the seventeenth century onward, colonial expansion facilitated the global spread of English to North America, Ireland, Australia, New Zealand, and numerous other regions (*Crystal, 2003*). The analytical tendencies of the language intensified: grammatical relations came to be expressed primarily through word order and prepositions, rather than through inflectional morphology. Morphological change slowed considerably, adjectives ceased to vary for gender, case, or number, and inflection persisted mainly in degrees of comparison. Syntax became the principal means of expressing grammatical meaning, both in written and spoken discourse.

Gradually, English developed into a global language of international communication in politics, business, science, tourism, and education. Data from UNESCO and the British Council (*Graddol, 2006*) show that English is used as a primary language in education for over 1.5 billion people worldwide, illustrating its function not only as a native language but also as a dominant medium of international knowledge and scientific discourse.

Today, English has official status in more than 60 sovereign states (*Crystal, 2013*). However, its role is not uniform across regions. Scholars often classify the spread of English into three concentric circles (*Kachru, 1985*): the Inner Circle, where English is a native language (e.g., the UK, the USA, Canada, Australia, and New Zealand); the Outer Circle,

where it functions as an institutionalized second language, often inherited from colonial rule (e.g., India, Singapore, Nigeria, and Kenya); and the Expanding Circle, where it is primarily learned as a foreign language (e.g., Latin America, Western Europe, and East Asia). This classification highlights the diversity of English's global roles and the varieties that emerged from these different contexts.

While Kachru's model is useful for illustrating historical patterns of English diffusion, it has limitations in the contemporary context. It assumes relatively fixed linguistic roles and does not fully account for globalization, multilingual realities, or digital communication. Modern English functions dynamically across globalized workplaces, online media, and international academia, often transcending the traditional Inner, Outer, and Expanding Circles. For example, English operates as a lingua franca in multilingual environments in Asia and Africa, regardless of colonial history.

Furthermore, the historical spread of English through colonial expansion differs from its contemporary influence, which is driven largely by cultural, technological, and scientific exchange. While the British Empire established English in administration, education, and governance, today English's global presence is reinforced through mass media, digital communication, scientific publications, and international collaboration.

National varieties of English continue to develop in high-level English-speaking countries, differing mainly in pronunciation, vocabulary, and spelling conventions, while sharing largely the same grammatical system (*Trudgill & Hannah, 2017*). In mid-level English-speaking countries, English often serves as a lingua franca across multiple ethnic groups and is used in administration, education, and media. In Africa, English remains the key language of governance in countries like Nigeria and Ghana, coexisting with indigenous languages (*Bamgbose, 2001*).

The global importance of English today depends not only on the number of its speakers but also on the enormous volume of scientific, technological, and cultural information produced and transmitted in English (*Graddol, 2006*). Borrowings from other languages, especially Latin, French, and later many others, have enriched the lexicon. The adaptability of English lies in its readiness to absorb new vocabulary to describe emerging realities, making borrowings one of the most important sources of word formation (*Durkin, 2014*).

By critically considering Kachru's model alongside historical and contemporary perspectives, it becomes evident that the global role of English is dynamic and context-dependent, shaped by both historical colonial legacies and modern globalization. This nuanced understanding underscores why English functions today as the most widespread language of international communication.

7. Conclusions

The historical development of the English language illustrates its remarkable transformation from a regional West Germanic dialect into a global lingua franca. Over more than fifteen centuries, English has experienced profound phonetic, morphological, syntactic, and lexical changes, shaped by historical events, cultural exchanges, and social transformations.

The Old English period established the core Germanic structure, enriched modestly through contact with Latin during Christianization and Old Norse during Viking settlements. The Middle English period, following the Norman Conquest, brought extensive lexical borrowing from French and Latin, significant simplification of inflectional morphology, and the gradual emergence of a more analytical grammatical system. The Early Modern English period,

influenced by the Renaissance and the Great Vowel Shift, saw both standardization and substantial lexical enrichment from classical languages, consolidating English as a national literary language exemplified by the works of Shakespeare and the King James Bible.

The Late Modern English period, shaped by colonial expansion, globalization, and technological progress, transformed English into a worldwide language of communication, science, education, and culture. Critically examining the global spread of English through Kachru's Three Circles Model (*Kachru, 1985*) reveals both its historical utility and contemporary limitations. While colonial expansion explains the establishment of English in the Inner and Outer Circles, modern globalization, multilingual realities, and digital communication have created dynamic contexts where English functions flexibly as a lingua franca, often beyond traditional categorizations.

The evolution of English demonstrates the dynamic interplay between internal linguistic mechanisms and external social, political, and cultural factors. Its adaptability, openness to borrowing, and capacity for structural simplification allowed English to preserve its Germanic foundation while integrating new lexical and stylistic elements. Recognizing these historical and contemporary processes is essential for linguists, philologists, educators, and learners, as it provides a comprehensive understanding of the mechanisms driving language change and the factors contributing to the global influence of English.

In sum, the history of English exemplifies how a language can evolve from localized origins into a powerful instrument of international communication, reflecting both historical continuity and ongoing adaptation to societal, cultural, and technological needs. Moreover, critical reflection on its global spread emphasizes that English's current role is context-dependent, multidimensional, and continuously reshaped by global dynamics rather than fixed by historical precedent alone.

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ARTIFICIAL INTELLIGENCE REVOLUTIONIZING THE LANGUAGE LEARNING PROCESS

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Summary

The article explores the significance of artificial intelligence (AI) in education, the main attention being paid to increasing influence on foreign language learning. It discusses various AI platforms and tools such as GTPchat, Duolingo, Anki, Speechify, LingQ, Grammarly and many others in respect to foreign languages learning process, and provides practical examples of their applications in language learning. The article highlights the role of AI in preparing students for the future by providing practical experiences and fostering critical thinking and problem-solving skills. The article presents a range of resources available for educators and students to learn in groups or individually. By leveraging these resources, educators can create engaging learning environments that inspire students to explore and pursue careers in emerging fields. The article emphasizes the benefits of incorporating AI resources in education as well as hardships in this field. Suggestions and ideas as to implementation of AI for language learning are also presented in the article.

Key words: AI, Foreign Language, Tools, Classroom learning, Self-study.

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1. Introduction

Artificial intelligence (AI) is a method of making a computer or software "think" like the human brain. This is achieved by studying the patterns of the human brain and analyzing cognitive processes. The result of this research is the development of intelligent software and systems (*Gigacloud, 2023*). Artificial intelligence is essentially the ability of machines to mimic human cognitive functions like learning and problem-solving. It doesn't achieve true consciousness, but rather utilizes complex algorithms to analyze massive amounts of data, identify patterns, and make predictions based on those patterns. This capability is fundamentally changing how we interact with technology and the world around us. As AI technology continues to develop, its applications will undoubtedly reach even further, potentially revolutionizing fields like education and scientific research. It's important to remember that AI is a tool, and like any tool, its impact depends on how we use it.

A few centuries ago, learning a foreign language was a much different experience than it is today. Wealthy people could afford tutoring from native speakers often through scholars. Travel and immersion methods were also important, as traders, diplomats, and explorers would learn languages directly by living in foreign cultures. Additionally, classical education often involved learning Latin and Greek through grammar-translation methods and the study of

classical texts. Over the years, many learners relied on phrasebooks, dictionaries, and handwritten manuscripts. The process was often slow and accessible only to the educated elite.

With the development of AI creating foreign language training programs using AI became possible but turned out to be a difficult task for several reasons: linguistic complexity, problems with emotional and motivational aspects, technological limitations, cultural and ethical aspects, etc. Despite these difficulties, AI already helps in learning languages, and over time the technologies will become more and more effective, in particular, in online methods. On their basis, applications and full-fledged language platforms are developed that provide more opportunities for both students and teachers. Besides, there are ongoing discussions about the ethical considerations surrounding AI bias and the responsible development of this powerful technology

Therefore, the main point of interest of the present paper is to consider AI-applications and tools in transforming language learning. To achieve this purpose, we suggest to consider the following items:

- Brief overview of AI focusing on education.
- The types of AI Tools in education
- Focus of AI on classroom lessons and individual studies
- Benefits and challenges of implementation of these platforms in educational and scientific processes
- Potential of AI Applications in Education

2. AI Tools in Education

AI-powered language learning tools are represented by a number of programs that provide a lot of opportunities for learning languages thanks to adaptive technologies, gamification, AI-Driven Feedback and motivation. The choice of AI tools usually depends on the level of knowledge and the purpose of the lesson where AI can analyze errors and select exercises adjusted for the student's level. For example, *Anki* or *Duolingo* platforms offer dynamic repetition: complex words and grammar are repeated more often, simple ones, less often. *ELSA Speak*, *Speechify* platforms can analyze speech and correct the interlocutor, give phonetic clues and train the correct pronunciation. *ChatGPT* and *Mondly* can act as virtual interlocutors. AI finds the best partners for conversations e.g. *Tandem*, *HelloTalk*, etc. Machine learning-based tests determine the level of language proficiency (A1–C2), and help to accurately identify weaknesses and strengths. Moreover, not only the answers are analyzed, but also the speed, complexity of vocabulary (*Duolingo English Test*), etc. There are also AI platforms such as *Google Lens*, *Reverso Context*, *DeepL Translator* and others that help to improve translation skills.

Among the wide number of platforms for teaching a foreign language the Ministry of Education and Science of Ukraine suggests the Project named "Instructional and Methodological Recommendations "On the Implementation and Use of Artificial Intelligence Technologies in General Secondary Education Institutions" to be widely used in the New Ukrainian School, taking into account age restrictions on the use of services based on artificial intelligence (*Project, 2025*).

When it comes to learning and education Artificial intelligence (AI) offers numerous tools capable of changing for the better or even revolutionizing the very process of education. It is possible to implement one of these tools or some of them into the classroom lesson. Let us have a close look at the choice of tools that could be especially useful for learning foreign languages and mainly English in elementary school, high school and university.

First of all, let us discuss what AI tools are preferable for elementary school. The primary purpose of using AI in primary school lessons lies in the creation of a gaming atmosphere with the help of adaptive games as gamification plays a crucial role for the primary schoolchildren who are young enough to play rather than study. With the help of a game teachers can join the hard work of getting knowledge with keeping kids' attention to develop various skills such as logic, memory and attention. Then, with the help of interactive books and tools AI can generate personalized assignments by adapting to each student's learning pace and style. And finally, it is possible to start using virtual assistants. Chatbots can respond to simple questions, assist with homework, and provide additional information on studied topics.

High school differs from primary or secondary schools in the focus of AI applications and the choice of its tools. AI can generate texts, images, and video materials for the development of educational resources. For example, GPT-based tools can assist in creating various types of texts, ranging from simple explanations to more complex essays. AI can help students analyze large volumes of data, which is particularly useful for natural sciences and social disciplines. AI-driven platforms can offer individualized learning plans tailored to each student's needs.

University utilizes AI for scientific data analysis, model creation, and outcome prediction. Advanced AI-powered platforms can offer interactive courses that include video lectures, assignments, and discussion forums. AI can also assist in creating professional presentations by automatically generating slides and selecting relevant visual material.

2.1. Brief Description of Common AI Language Platforms for Classroom and Self-Study

It is important to remember that AI is alive and well in our world, and that in the digital world, it is not always possible to completely abandon these models because they are so easily accessible and many of them are free to access. The difference is in using the value they can provide as tools. It is important to correctly integrate AI into the educational process so that it complements classes, not replaces them. The choice of AI resources is determined by the curriculum, type and topic of the lesson. Based on the development of students' competences (listening, speaking, writing, reading), the Ministry of Education and Science of Ukraine, for example, suggests using certain AI resources. An overview of the commonest AI resources used in modern education is given in Table 1.

Table 1

AI Platforms for Learning Foreign Languages in a Classroom and for Self-Study

AI Platforms	Focus	Classroom	Independent Work
<i>Chat GPT</i>	<i>Speaking</i> : all kinds of communication in a foreign language	Dialogue practice, error checking	Essay writing assistance, grammar analysis, exam preparation
<i>Duolingo, Anki</i>	<i>Dynamic repetition</i> : gamified language learning, flashcards for memorizing words	Use in study groups, creating common sets of cards	Individual learning of words
<i>Speechify</i>	<i>Listening</i> : correct pronunciation, text-to-speech practice.	Reading educational materials aloud	Listening practice
<i>LingQ</i>	<i>Reading</i> with automatic translation	Text analysis in the classroom	Self-study of new vocabulary
<i>Grammarly</i>	<i>Writing</i> : checking grammar, style of speech	Students editing their work	Improving writing skills

Table 1 (continuance)

Google Lens	Text recognition and translation	Learning new words, working with context	Translation from pictures and signs
Reverso Context	Translation with examples in context	Analysis of the meanings of words and expressions	Deep understanding of phrases in context
DeepL Translator	Accurate translation, analysis of language nuances	Extended translation with explanations	Help with text translation

The first six AI platforms are aimed at developing the essential learning skills such as speaking, listening, writing and reading while the last three platforms are aimed at improving translating competences of the students.

3. Application Examples of Popular Platforms for Learning a Foreign Language

a. Chat GPT

For the last few years, the use of Chat GPT (*ChatGPT, 2025*) has been discussed in society, and in all countries without exception. Some authors suggest banning it, blocking access to the platform in schools, while others, on the contrary, see it as almost a replacement for a teacher. Kevin Roose in his article "Don't Ban ChatGPT in Schools. Teach with It" argues that banning this powerful resource is the wrong step. ChatGPT can be used as a tool, in our case, to help in learning a foreign language both in the classroom and independently (*Roose K., 2023*).

ChatGPT can be used as a tool for classroom work as well as for self-study. ChatGPT is an artificial intelligence that can converse with users with the help of natural language. The service is powered by deep learning, which teaches it to understand natural language and generate responses to user requests and commands, called prompts.

To get the most out of ChatGPT, you should clearly formulate the question or problem you want to solve, so called prompts. This will ensure a more accurate and understandable answer. To get the most useful information, you should use queries that match the topic you want to study. You can also use phrases or queries to practice grammar, pronunciation, and other aspects of the language. Basic queries for ChatGPT for learning English:

- “Hi, I want to learn English. Help me get started.”
- “Show me exercises to learn English grammar.”
- “Let's practice speaking in English.”
- “Answer a question in English.”
- “Show me an example of using a word/phrase in a sentence.”

With the help of artificial intelligence, it is possible to develop a list of essential English competencies.

– *Working on grammar*: You can ask for an explanation of a grammar rule or tense: “Please explain when to use the present continuous tense.” You can also give the task of showing examples of the use of a grammar structure: “Please give me 3 examples of the phrasal verb “look for””. Add to one of the messages, for example, the prompt “Please correct my grammar mistakes if you see them”. If the student makes a mistake, ChatGPT will point it out with the next message. If the material is not clear, you can ask for a more detailed explanation. Although prompts can be written in your native language, it is better to do this in English.

– *Improving vocabulary.* Firstly, you can talk to the bot on any topic. A possible prompt: “Please suggest vocabulary for this conversation”. Secondly, you can use words for a certain level. For example: “Could you please use the C1 vocabulary”.

– *Working on pronunciation.* A great way to do this is to ask the chat to generate sentences or words that you can practice saying out loud. Ask for words or sentences that repeat a certain sound, or have a sequence of two or more sounds (e.g. the “sl” sequence in “slogan” and “slippery”), or words that contrast in only one sound (e.g. “sit” and “seat”). Prompt: “Please suggest words with the same sounds as...”. Try to pronounce them correctly. For this, the student must have the sounds set – this should be worked on with the teacher. Do not rely entirely on the chat for correct pronunciation. If you have doubts, use other tools to check.

– *Improving fluency.* A working way to improve your confidence and fluency, as well as convey a clear idea, is to speak and create original thoughts (as opposed to simply reading conversations and scripts out loud). To practice speaking on your own, the neural network can suggest topics for conversation, so you don’t have to come up with ideas every day. Prompt: “Can you write a topic to talk about with a doctor.” (*Englishprime, 2023*).

Summing up, the key to working with a GPT chatbot is to ask the right question: the quality of the answers depends on the quality of the questions. The more detailed your request is, the better the chatbot will respond to it.

b. Duolingo

Duolingo was launched in 2012. At that time, it only offered English, but now there are 42 languages on the list. Among them are French, Greek, Romanian, Latin, Hawaiian, and others. You can study through a mobile app or on the website. The service has free and paid versions. The training is conducted in the form of short lessons in a game format. This helps to keep the students' attention. They are praised and awarded for the topic covered, and for success they are added to the list of the most active. With the help of Duolingo, you can master vocabulary and grammar. The application also has exercises for pronunciation and listening (*Duolingo, 2025*).

In the classroom, Duolingo can be used as a game element, to consolidate material and homework. For classroom work, the following types of work can be offered:

– Warm-up before the lesson. At the beginning of the lesson, students do a 5–10-minute exercise in Duolingo to get into the working rhythm. This helps to quickly get into the language environment, and is also an easy way to review vocabulary and grammar material.

– Topic practice after the lesson. After studying a certain topic (for example, Future Tenses), the teacher can offer to complete the corresponding tasks in Duolingo. One of the obvious advantages is the practical application of knowledge by students. In addition, the AI platform adapts to the level of each student. A special feature of this platform is the multiple repetition of educational material in an easy, playful form.

Duolingo helps to develop a daily language habit and effectively complements other learning methods. The following types of work are actively used as tool for self-study:

– Mini-lessons of 10–15 minutes a day. It is enough to devote 5–10 minutes a day to maintain language skills without overload and combine them with other methods (reading, watching movies).

– Developing listening skills. To do this, you can turn on listening exercises in Duolingo and repeat out loud. This will help improve your perception of English speech, as well as practice pronunciation.

– Reinforcing vocabulary with cards. Duolingo offers a "Verbal Practice" section where you can repeat previously learned words. With regular repetition of difficult words, students remember the vocabulary of the topic more easily.

– Using Duolingo Stories. These are short stories with dialogues that help understand the language in context. As a result, students develop an understanding of the language through the plot and can test themselves by answering questions regarding the text they listened to.

c. Anki

In the classroom, Anki can be used for games and tests, and in independent work – to expand vocabulary and prepare for exams (*Anki, 2025*).

For classroom work: The learning process is easy and relaxed when using a game element – gamification – in the process of learning a foreign language. A striking example is team quizzes. The teacher shows a card with an English word, and the students must name the translation or make a sentence. You can divide the class into teams. Competition makes learning words fun and increases student involvement in the process. Instead of individual words, you can create cards with grammar examples. For example, to the teacher's question "How is Present Perfect Continuous formed?" students answer "Have/has been + V-ing" and give their own examples (e.g., I have been studying for two hours)." This way, it helps to remember complex constructions.

Anki is ideal for learning English on your own thanks to individual repetitions, the ability to add pictures and audio. An interesting approach, in our opinion, is the use of personal cards with new words, idioms and phrasal verbs. It is possible to add 5–10 new words with translation, examples and pictures every day.

One of the advantages is the individual customization of cards. The platform allows adding audio and images for associations. You can create cards for memorizing new idioms, set expressions, lexical chunks. For example, the phrase "Break the ice" can be perfectly supplemented with the definition "To start a conversation in a social situation" followed by the example "He told a joke to break the ice at the party" and a corresponding picture or a short video. Thus, it helps to remember expressions in context. To practice pronunciation, it is advisable to add voiced examples to the cards (for example, from Google Translate).

d. Speechify

Speechify is a text-to-speech application. It helps to develop listening, pronunciation and comprehension skills of the English language (*Speechify, 2025*). Using Speechify in English lessons helps to improve listening comprehension.

During classroom work, students are offered a text (article, dialogue, essay) for listening without relying on the text. This helps train listening skills. At the same time, the teacher can choose a different speed of text reproduction depending on the level of training of the students. The use of natural voices of native speakers is another undoubted advantage of this platform.

Speechify will help you listen to books and articles in English during self-study. And also prepare for passing exams (IELTS, TOEFL). When passing language exams, one of the most difficult parts for non-native speakers is listening. The platform allows you to download examples of tasks from the "Listening" section and train listening comprehension, use voiced essays to get used to the academic style of speech.

e. LingQ

LingQ is a powerful tool for learning English through reading and listening (*LingQ, 2025*). It helps to expand the vocabulary, improve listening comprehension and master the language in a natural context. In the classroom, LingQ can be used, for example, for

- Reading texts with automatic translation. In this case, students read the text and click on unfamiliar words to immediately see the translation and add them to their dictionary.
- Developing listening skills. The teacher can turn on the audio version of the text and ask students to listen without reading. Then give the text and ask them to highlight the words they did not understand. After that, listen again and discuss.

When studying on your own, LingQ is typically used for reading books and articles in English, listening to audiobooks and podcasts, and automatic dictionary maintenance.

f. Grammarly

Grammarly is a powerful grammar, spelling, and writing style checker (*Grammarly, 2025*). It helps students write without errors, improve academic and business texts, and even develop writing skills. Grammarly application in the classroom involves:

- Improving vocabulary. For example, Grammarly suggests replacing simple words with more complex ones (e.g., "good" → "excellent").
- Analyzing common mistakes in class. The teacher asks students to upload their texts to Grammarly and share a list of mistakes. The most common mistakes are then discussed in class, for example: "a/an/the"
- Develop an intuitive understanding of grammar. Instead of mechanically correcting errors, analyze why Grammarly suggests certain changes.
- Improving Business Correspondence and Formal Letters. Students a) write a business letter (e.g. a complaint or request); b) check it in Grammarly to improve the wording and make sure the text sounds professional.

Variants of using Grammarly for self-study a foreign language:

- Proofreading and editing essays and compositions. Students write essays (for example, an argumentative essay for the external examination). Before submitting, they check the text in Grammarly, correct errors and improve the style. The teacher analyzes the corrected and original version to see progress.
- Preparation of resumes and motivational letters. How to use: Check your resume and cover letter in Grammarly. Improve wording, make the text more convincing.

4. Challenges and Limitations

The implementation of artificial intelligence in language education opens up new perspectives for improvement. However, we should not forget the prominent roles of teachers who make this process possible and continue to adjust AI tools into the learning space room. Some practitioners, e.g. Nikitina, Ishchenko express the opinion that AI cannot and should not replace the real teachers in the classroom, despite all modern AI tools and platforms (*Nikitina I, Ishchenko T., 2024*). A lot of plasticizing teachers keep to the same point of view, e.g. Kozubai emphasizes the key role of human-teachers in the educational process who continues to play a crucial role in keeping the quality of education (*Kozubai I., 2023*).

AI still has its limitations, which make it unable to completely replace the teacher. Let's name some key limitations of artificial intelligence in teaching foreign languages.

First, the lack of human intuitive understanding: AI operates with data and algorithms, but it does not have the ability to understand context, emotions and intercultural nuances, which can be important when learning a foreign language. The teacher is able to explain difficult points and adjust lessons to the needs of each student.

Secondly, the impossibility of adaptation to individual needs: AI can offer standard lessons and exercises, but it is not able to adapt lessons to the level and needs of a particular student. The teacher can develop an individual approach, taking into account the peculiarities of each student.

Thirdly, limitations in the development of speaking skills: AI can help a student improve comprehension and written language skills, but the development of speaking skills requires practice and feedback that can only be provided by a teacher.

Fourth, limitations in evaluation and motivation: AI can provide evaluations and statistics about progress, but it is not able to motivate and inspire the student in the way that a teacher can do with his example and support.

5. Future Prospects of AI in Language Learning

The continued development of artificial intelligence in education is expected to significantly transform teaching methodologies, learning environments, and administrative processes.

As AI-powered tools advance, adaptive learning systems are anticipated to become more refined, allowing for personalized education that adjusts to individual student needs in real-time. Machine learning algorithms will likely enhance these systems, enabling more accurate assessments of student comprehension and providing tailored resources to address learning gaps. This adaptability improves not only educational outcomes but also encourages student engagement by delivering material at an optimal level of difficulty and relevance. In parallel, AI-driven data analytics are expected to revolutionize educational administration. Predictive analytics can assist institutions in identifying students at risk of underperforming, enabling proactive interventions that may increase retention rates. Moreover, AI could streamline routine administrative tasks, such as grading and scheduling, which allows educators to focus on complex, high-value activities like curriculum development and mentorship.

AI's role in education will likely extend beyond cognitive support to include emotional and social aspects of learning. Through natural language processing and sentiment analysis, AI systems may detect emotional cues, allowing for timely interventions when students exhibit signs of frustration or disengagement.

Furthermore, virtual reality (VR) and augmented reality (AR) interfaces powered by AI could foster immersive, interactive learning experiences, making complex subjects more accessible.

However, the advancements that AI has in educational environments also introduce complex data privacy and security concerns. AI in education often relies on extensive data collection from students, teachers, and institutions, which includes personally identifiable information (PII), academic records, behavioral data, and even biometric data in some cases. As educational institutions adopt AI-driven tools, safeguarding this data against unauthorized access, misuse, and privacy breaches has become a critical challenge.

A primary concern in AI-driven education is data privacy. Student data is often sensitive, covering a wide range of personal and academic information that can be vulnerable to misuse if not adequately protected. Privacy regulations should be imposed on strict guidelines for the collection, storage, and processing of personal data according to national and international legislations.

Security concerns are equally critical, particularly given that educational institutions often lack the robust cybersecurity infrastructure found in other sectors like finance or health-care. AI systems are susceptible to data breaches, unauthorized access, and hacking, which can expose vast amounts of sensitive data. Additionally, AI systems can be manipulated through adversarial attacks, wherein malicious actors input misleading data to alter AI outputs. Such vulnerabilities can compromise the integrity of educational assessments and personalized recommendations, potentially impacting students' academic outcomes and trust in AI technology. To mitigate these privacy and security risks, it is essential to implement rigorous data governance frameworks, with clear guidelines for data access, anonymization, and encryption. Furthermore, educational institutions must prioritize transparency with stakeholders, providing clarity on how data is collected, used, and protected.

6. Conclusion

Overall, artificial intelligence should neither be demonized nor deified. It is a truly valuable achievement of scientific and technological progress, but it is not enough to use AI alone to achieve significant results. Just as there is no single universal textbook for learning a foreign language, there is also no single universal AI platform for this purpose. Instead, AI offers a wide range of platforms and tools that effectively complement each other. Both teachers and learners can select the most suitable tools based on their specific needs and learning goals. The choice of a particular platform or tool depends largely on the intended purpose of the study, whether it is improving vocabulary, mastering pronunciation, developing translation skills, brushing up grammar skills or enhancing overall language proficiency. In our survey, we aimed to explore the most popular and effective AI platforms and tools for practical mastering language learning, highlighting their strengths and hardships, potential applications and the unique benefits they bring to the educational process.

At the same time, the educational programs and services created on its basis really help students significantly, offering personalized content, feedback, and materials adapted to the tasks at hand. In addition, AI allows teachers to optimize the learning process and focus on what is truly valuable – teaching and helping students to reveal their language potential.

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ARTIFICIAL INTELLIGENCE AS A TOOL FOR AUTOMATING NEWS PRODUCTION: IMPACT ON THE GENRE SYSTEM OF CONTEMPORARY JOURNALISM

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Summary

This article investigates how artificial intelligence (AI) reshapes the processes and genre system of contemporary journalism. As automated writing tools, natural language generation, and algorithmic curation become integral to newsroom operations, they not only enhance efficiency but also transform professional routines, editorial decision-making, and modes of audience engagement. The study examines how AI facilitates the emergence of new hybrid genres – algorithmic summaries, data-driven narratives, and personalized news digests – that merge computational logic with journalistic storytelling. However, the same mechanisms that increase speed and personalization may simultaneously narrow content diversity, marginalize long-form analytical formats, and reinforce engagement-driven biases. Drawing on interdisciplinary literature in media studies and AI ethics, this research argues that artificial intelligence acts as both a technological and cultural agent, redefining authorship, creativity, and responsibility in journalism. The article concludes that sustainable integration of AI requires maintaining the human core of journalistic practice – interpretation, ethical reasoning, and narrative depth – while adapting professional standards to algorithmic realities. AI should thus be viewed not as a substitute for journalism but as a transformative force demanding the reconfiguration of its functions, values, and genre architecture in the digital era.

Key words: artificial intelligence; news automation; journalistic genres; algorithmic journalism; media transformation; personalization; journalism ethics.

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1. Introduction

The rapid development of artificial intelligence (AI) technologies has become one of the most influential forces shaping the media landscape of the twenty-first century. Newsrooms around the world are increasingly turning to algorithmic tools, natural language generation systems, and machine learning applications to manage growing volumes of information and meet the demand for real-time reporting. These technologies have introduced new opportunities for efficiency, scalability, and accuracy in news production. At the same time, they raise profound questions about the nature of journalism itself and about how algorithmic mediation transforms professional values and communicative functions (*Sonni, 2025*).

Traditionally, journalism has been defined by professional practices of verification, interpretation, and narrative construction, where human authorship played a central role. With the integration of AI, however, the boundaries of authorship, creativity, and editorial responsibility are being redefined. Automated reporting systems are capable of producing financial briefs, weather updates, and sports summaries in seconds, while personalization algorithms adapt news flows to individual reader preferences. Such innovations challenge

the established understanding of what counts as a journalistic text and how genres of reporting evolve in digital environments.

This transformation corresponds to what scholars describe as computational journalism – a stage where algorithms not only assist but also co-produce journalistic content. Editorial decision-making becomes increasingly data-driven, and journalistic authority shifts from the individual reporter to the interaction between human editors, datasets, and algorithmic models (*Diakopoulos, 2019*). At the same time, personalization systems and engagement analytics introduce new dependencies on platform logic, raising ethical questions about transparency, bias, and the erosion of the shared public sphere (*van Dalen, 2024*).

Consequently, AI changes not only newsroom workflows but also the genre system of journalism. Machine-generated briefs and algorithmic summaries support short, factual formats, while investigative and analytical genres rely on AI for pattern detection, data visualization, and large-scale analysis. Hybrid genres – algorithmic explainers, data-driven features, and personalized newsletters – demonstrate how automation expands expressive possibilities yet threatens diversity by favoring speed and emotional engagement over depth (*Hollanek et al., 2025*).

This article explores the impact of AI on the genre system of contemporary journalism, with particular attention to the ways in which automation alters traditional categories of news writing. While much of the scholarly literature has examined the efficiency and economic benefits of automation, less attention has been given to its implications for genre diversity, authorship, and the cultural functions of journalism. By situating AI within the broader framework of media innovation and professional ethics, this study seeks to understand whether artificial intelligence is merely a tool for optimization or a transformative agent reshaping the foundations of journalistic communication.

2. Literature Review

Research on artificial intelligence in journalism highlights both opportunities and challenges. The concept of “algorithmic journalism” is used to describe computational systems that generate and distribute content with limited or no human authorship.

Early studies emphasized efficiency. Natural language generation has shown strong results in financial, sports, and weather reporting, where repetitive data can be quickly transformed into coherent texts. While such tools free journalists for interpretive work, they also risk narrowing the role of human creativity (*Danzon-Chambaud, 2021: 10*).

Another line of scholarship addresses epistemological concerns. Machine-generated texts can be produced at scale, yet the logic of algorithmic decisions is often opaque. This “black box” effect complicates accountability and raises doubts about whether accuracy and balance can be maintained. Finally, research on personalization systems shows that engagement-driven algorithms favor short and emotionally charged formats, which may weaken long-form investigative and analytical genres. Editorial strategies increasingly adapt to these pressures, influencing the diversity of journalistic output.

In addition to these perspectives, recent scholarship has moved toward a more integrative understanding of computational journalism as both a technological and cultural phenomenon (*Diakopoulos, 2019*). Studies by Dörr (2016) and Haim, M., & Graefe, A. (2017) have demonstrated that automation can enhance newsroom productivity, but they also warn that it introduces new dependencies on data providers and software infrastructures. The Associated Press, Bloomberg, and The Washington Post have been frequently cited as examples of

organizations adopting AI to generate earnings reports, sports recaps, and election updates (Graefe, 2016). While these practices increase output and speed, they simultaneously redefine editorial labor, shifting professional authority from the reporter to the algorithm designer.

Ethical and epistemological debates further complicate this picture. Algorithms trained on biased datasets can reproduce and amplify existing inequalities, a problem increasingly discussed in the context of algorithmic bias and transparency. The call for “explainable AI” in journalism is not merely a technical demand but an ethical one, ensuring that audiences understand how automated systems shape the news they consume. Moreover, scholars such as Thurman et al. (2023) stress that audience personalization, while improving engagement metrics, deepens fragmentation and filter bubbles, potentially undermining journalism’s democratic mission.

Finally, emerging literature highlights the cultural and genre-related consequences of automation. Hollanek et al. (2025) emphasize that the proliferation of AI-generated content contributes to genre hybridization – the blending of factual, interpretive, and algorithmic forms of expression. This trend signifies not only a technical evolution but also a transformation in journalistic aesthetics, authorship, and the relationship between human creativity and computational logic.

Despite extensive discussion of efficiency, economics, and ethics, there is still limited analysis of how automation reshapes genre categories themselves. This article contributes to filling this gap by examining AI’s role in redefining the system of journalistic genres.

3. AI and the Transformation of News Production

Artificial intelligence has become a structural factor in modern newsrooms, transforming workflows and the logic of content creation. Automated reporting, machine learning, and personalization systems are now common tools for handling data, producing real-time updates, and tailoring news to audiences.

Automated reporting is the most visible application. Financial briefs, weather forecasts, and sports updates can be generated instantly, ensuring speed and consistency. This allows broader coverage but also shifts human journalists toward tasks requiring interpretation, narrative, and investigation. The Associated Press was among the first to implement such systems in 2014, automating corporate earnings reports through its partnership with Automated Insights. Similarly, *The Washington Post* used its “Heliograf” system to produce thousands of election updates and sports recaps, while Bloomberg’s “Cyborg” platform generates market reports in real time (Graefe, 2016). These cases illustrate how automation enhances productivity and timeliness but simultaneously redistributes professional authority between humans and algorithms.

AI also affects editorial choices. Machine learning tools track audience behavior and predict which stories will attract attention. While this improves efficiency, it risks narrowing diversity by favoring algorithmic trends over professional judgment (van Dalen, 2024: 567). Editorial analytics dashboards increasingly determine story placement, headline formulation, and even linguistic tone, creating situations in which editorial reasoning becomes secondary to data-driven optimization.

Personalization further changes news consumption by customizing flows to individual users. Engagement rises, but selective exposure and filter bubbles threaten the shared public sphere. Thurman et al. (2023) note that personalization algorithms, though valuable for retaining audiences, fragment the collective experience of news and encourage ideological echo

chambers. Consequently, the informational unity that historically underpinned public discourse becomes dispersed across algorithmically isolated audiences.

Finally, newsroom culture adapts to hybrid work between editors and technologists. Journalists require new skills in data literacy, coding, and algorithmic awareness, blurring traditional professional boundaries. As Diakopoulos (2019) emphasizes, this shift demands a reconceptualization of *editorial authority* – from individual expertise toward human–machine collaboration. Newsrooms now employ “data journalists,” “AI editors,” and “automation specialists,” forming cross-disciplinary teams responsible for both production and oversight. These evolving structures redefine not only workflows but also the epistemology of journalistic knowledge, where algorithmic reasoning becomes an integral part of the editorial process.

In this environment, artificial intelligence emerges not merely as a technical aid but as a transformative force reshaping production, distribution, and audience relations in journalism. It introduces new hierarchies of decision-making, redistributes creative agency, and alters the ethical foundations of media work. Understanding this transformation is therefore essential for evaluating how AI mediates not only the speed and scale of news but also its authenticity, diversity, and democratic value.

4. Impact on Journalistic Genres

The use of artificial intelligence in newsrooms significantly reshapes the genre system of journalism. Genres once defined by fixed conventions are now influenced by automation and algorithmic logic, leading to both reinforcement of traditional categories and the rise of hybrid forms.

Automated reporting primarily supports short, factual formats. Financial briefs, sports updates, and weather reports are easily generated from structured data, prioritizing speed and consistency. In these genres, the role of human authorship diminishes, while oversight and contextualization gain importance.

Investigative and analytical genres remain resistant to full automation, yet AI assists by detecting patterns in large datasets, supporting research, and summarizing content. This strengthens the scope of complex reporting but preserves the centrality of interpretation, creativity, and ethical judgment.

Hybrid genres such as algorithmic summaries, data-driven reports, and personalized newsletters reflect new intersections between computation and communication. Designed for fragmented digital audiences, they illustrate the fluidity of contemporary genre systems (Hollanek et al., 2025).

Recent scholarship describes this phenomenon as genre hybridization – the blending of stylistic and structural features from traditional journalistic categories with computational procedures and data visualization techniques. For example, automated *live-blogs* merge real-time algorithmic updates with human commentary, while interactive explainers combine textual narration, AI-generated graphics, and dynamic statistics. These formats demonstrate that AI not only affects how journalists write but also how audiences experience and interpret journalistic narratives.

Furthermore, the concept of algorithmic authorship challenges the notion of the reporter as a single creative agent. In AI-mediated genres, authorship becomes distributed among multiple actors: journalists, software developers, and the algorithmic models that generate or rank content. This reconfiguration blurs professional boundaries and redefines the ethical responsibility for accuracy and bias in hybrid outputs.

Another significant effect is the platformization of journalistic genres. As algorithmic tools increasingly tailor news for search engines and social-media distribution, genre conventions adapt to platform logic – favoring brevity, emotional appeal, and clickability. Consequently, long-form investigative formats risk marginalization, while visual-narrative and audio-assisted genres (such as AI-generated podcasts or summaries for smart assistants) expand their reach.

Still, this transformation is not purely reductive. AI also enables innovative genres that extend journalistic storytelling: automated explainers contextualize complex data; machine-learning-based visualizations create immersive experiences; and recommendation systems personalize editorial narratives to user interests. These developments suggest that journalism's genre system is evolving toward a multi-layered ecology where human creativity and computational intelligence coexist.

The challenge lies in maintaining the ethical and epistemic integrity of genres while experimenting with form. Without transparency and critical oversight, hybrid formats risk eroding trust and informational diversity. Therefore, the future of journalistic genres depends on achieving balance – leveraging automation to enhance accessibility and engagement while preserving depth, accountability, and the interpretive role that defines journalism as a cultural institution.

5. Conclusion

The integration of artificial intelligence into journalism marks a turning point in both professional practice and cultural production. While automation brings efficiency and scalability to newsrooms, its influence extends far beyond technical optimization. By privileging certain formats and enabling new hybrid genres, AI reshapes the genre system of journalism itself and redefines the relationship between technology, creativity, and editorial responsibility.

Short, standardized formats such as briefs and updates have become the domain of machines, while more complex genres – investigations, features, and commentary – retain their reliance on human creativity and judgment. At the same time, algorithmically generated summaries and personalized outputs point to new forms of journalistic expression that align with the dynamics of digital media consumption. These hybrid forms demonstrate that journalism is no longer a purely human enterprise but a human-machine collaboration embedded in computational infrastructures.

The risks are equally clear. Algorithmic incentives may erode diversity by privileging brevity, emotional engagement, and audience predictability over depth and context. Such trends threaten the pluralism and critical dialogue on which democratic journalism depends. Therefore, maintaining editorial autonomy and genre diversity becomes a key challenge for the future. Journalists must cultivate algorithmic literacy – an understanding of how automated systems process data, rank stories, and shape public perception – to ensure that technological progress supports rather than distorts journalistic integrity.

To navigate this transformation responsibly, media organizations should embed ethical frameworks that guarantee transparency, inclusivity, and accountability. International initiatives such as the UNESCO Ethical Guidelines on Artificial Intelligence and Journalism (2023) and the European Broadcasting Union Principles for Trustworthy AI (2023) emphasize human oversight, fairness, and respect for public interest as essential safeguards. These principles underline that technological advancement must serve the broader social mission of journalism, not replace it.

Ultimately, AI should not be seen as a replacement for journalism but as a force demanding a redefinition of its functions and values. The resilience of the profession will depend on its ability to integrate algorithmic tools while preserving human interpretation, ethical reasoning, and narrative depth. In this balance – between automation and authorship, data and meaning – lies the sustainable future of journalism as both an industry and a cultural practice.

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EFFECTIVE COMMUNICATION IN A PROFESSIONAL ENVIRONMENT: THE ROLE OF SOFT SKILLS FOR PHILOLOGISTS

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Summary

In contemporary professional environments, the centrality of effective communication increasingly foregrounds the significance of soft skills alongside technical expertise. While philologists possess advanced linguistic and cultural knowledge, their success in academic, pedagogical, and applied contexts depends equally on interpersonal competence, adaptability, and reflective communicative practice. This article conceptualizes soft skills as multidimensional interpersonal, cognitive, and emotional capacities – encompassing communicative adaptability, empathy, conflict resolution, teamwork, and self-management – that extend beyond mere linguistic proficiency. Within communication theory, such skills are framed as dynamic strategies enabling discourse negotiation, contextual adaptation, and metacognitive regulation of communicative choices. Focusing on the philological domain, the study argues that soft skills are indispensable for roles requiring cultural mediation, translation, teaching, and editorial collaboration. Evidence suggests, however, a persistent skills gap: employers report that humanities graduates, despite assumptions of strong communicative competence, often underperform in negotiation, teamwork, and workplace adaptability. To address this discrepancy, the article proposes pedagogical interventions grounded in embedded integration, reflective metacognition, simulation-based practice, and interdisciplinary collaboration. Suggested curricular innovations include scenario-based role plays, conflict-resolution workshops, peer-assessed publication projects, and language labs emphasizing pragmatic variation. Ultimately, the article contends that philological training must transcend traditional textual analysis to cultivate the interpersonal and strategic dimensions of communication. By embedding soft skills development into higher education curricula, institutions can prepare philologists to navigate complex professional environments with rhetorical sensitivity, cultural awareness, and adaptive competence. Such integration not only enhances employability but also enriches the broader communicative impact of philologists within multilingual and multicultural contexts.

Key words: soft skills, communication, competence, communicative tactics, philologists, professional environment, higher education.

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1. Introduction

In today's rapidly evolving environment, the ability to communicate effectively is one of the most essential competencies for professional success. While technical expertise and qualifications remain indispensable, employers increasingly emphasize a broader set of abilities known as soft skills. These include interpersonal, cognitive, and emotional capacities that shape collaboration, adaptability, and conflict resolution. For philologists – whose vocation is tied to language, discourse, and culture – communication skills are not only tools but an existential requirement. Their identity is inseparable from language as both medium and object of inquiry, making communicative competence central for academic and professional development.

The demands of twenty-first-century workplaces underscore the need to reconceptualize communicative competence. Traditional definitions highlight grammar, vocabulary, or literary analysis. While foundational, such expertise is insufficient in environments demanding dynamic collaboration across disciplines and cultures. Employers consistently identify a “skills gap”: graduates demonstrate strong domain knowledge but limited interpersonal versatility for multicultural, fast-changing contexts (*Toronto Metropolitan University, 2015*). This mismatch signals the need for explicit integration of soft skills into philological education.

Philologists hold a distinctive position in this discussion. Their training in linguistic structures, cultural interpretation, and critical reflection overlaps naturally with adaptability, empathy, and rhetorical sensitivity (*Yazlovytska, 2023*). Yet education often privileges textual mastery while neglecting systematic cultivation of soft skills as teachable, assessable competencies. As a result, many graduates possess strong intellectual foundations but limited preparation for interpersonal and organizational demands (*Williams, 2015*).

Addressing this imbalance requires embedding soft skills within communication theory. Communication is not mere information transfer but meaning-making shaped by roles, culture, and relationships. Effective professionals must move beyond technical proficiency toward holistic competence integrating reflection, adaptability, and interpersonal intelligence. Research in organizational behavior and applied linguistics emphasizes that successful professionals negotiate meaning, calibrate tone, and foster collaboration in diverse environments (*Touloumakos, 2023*).

Globalization and digitalization reinforce this urgency. Globalization expands intercultural exchanges, while digital communication reshapes discourse. Email, videoconferencing, and collaborative platforms demand agility, clarity, and sensitivity to tone. For philologists – working as teachers, translators, editors, or mediators – linguistic expertise must combine with digital fluency and interpersonal awareness. Integration of soft skills into education thus becomes a structural necessity (*Cimatti, 2016*).

The article pursues three objectives: (1) conceptualize soft skills within frameworks of communication and professional competence, clarifying boundaries with hard skills; (2) identify subdomains most critical for philologists – adaptability, empathy, conflict resolution, metacognitive reflection – and link them to translation, teaching, editing, and mediation; (3) propose strategies for embedding soft skills into curricula, including assessment models and interdisciplinary collaboration.

The rationale is both practical and scholarly. Practically, graduates must meet employer expectations: surveys rank communication, teamwork, adaptability, and problem-solving above technical knowledge (*Cukier, Hodson, & Omar, 2015*). Humanities graduates are assumed to possess such skills, yet evidence shows otherwise (*Williams, 2015*). Addressing this requires explicit pedagogy rather than implicit expectation. Scholarly, philology has emphasized textual analysis, but now can redefine its scope by engaging directly with applied communication.

Integrating soft skills into philological training also carries ethical and cultural weight. Communication is never neutral but infused with power, identity, and responsibility. Philologists, as specialists in language and culture, are positioned to foster inclusive and empathetic practices that bridge difference and promote understanding. Developing empathy, cultural sensitivity, and active listening is thus not only about employability but also about cultivating socially responsible citizenship (*Yazlovytska, 2023*).

By identifying the skills gap, situating soft skills within communication theory, and specifying critical subdomains, this article argues for their intentional integration into philological education. Linguistic mastery, though necessary, is no longer sufficient for success in complex and evolving settings. A holistic approach is required, one that foregrounds interpersonal, cognitive, and emotional dimensions as central to professional competence.

Soft skills constitute a cluster of abilities enabling individuals to build relationships, adapt to challenges, and resolve conflicts constructively. Unlike hard skills, codified in qualifications, soft skills are enacted in professional interaction (*Cimatti, 2016*). They encompass teamwork, empathy, adaptability, resilience, time management, and above all communication. Their defining feature lies in relational orientation: they are competencies performed dynamically with others.

In professional environments, the presence or absence of soft skills is decisive for cohesion, productivity, and satisfaction. Effective communication is not mere transmission of information but the foundation of trust and collaboration. Employers consistently rank communication and related soft skills as critical, often above technical proficiency (*Cukier, Hodson, & Omar, 2015*). This emphasis resonates with philologists' realities: as teachers, translators, editors, and mediators, they must convey meaning, adjust register, negotiate understanding, and bridge cultural divides – tasks inseparable from professional success.

2. Communication and Soft skills

2.1. Defining Soft Skills

Despite their acknowledged importance, soft skills remain conceptually elusive. Terms such as interpersonal skills, people skills, generic competencies, and transversal skills circulate widely in research and practice, often interchangeably and without stable definitions (*Cukier et al., 2015*). This inconsistency reflects the interdisciplinary nature of the field, spanning education, psychology, linguistics, and organizational studies. B. Cimatti (2016) provides a concise working definition, describing soft skills as “personal and social aptitudes—communication capacity, teamwork, adaptability, and emotional regulation—that complement technical skills and enhance organizational quality” (p. 98). This highlights two key features: their complementarity to hard skills and their contribution to organizational culture and effectiveness.

The lack of terminological consensus has clear pedagogical implications. Without clarity, educators struggle to design assessments or curricula that systematically develop these competencies. As W. Cukier et al. (2015) argue, this ambiguity sustains a persistent skills gap: employers expect soft skills, yet higher education often assumes they will emerge implicitly or relegates them to optional training. For philologists, whose professional practice depends on communication, empathy, and adaptability, this oversight is especially detrimental.

2.2. Soft Skills and Communicative Competence

The link between soft skills and communicative competence is particularly salient for philologists. Traditionally, communicative competence in linguistics encompassed

grammar, sociolinguistic awareness, discourse, and strategic competence. Yet in contemporary professional contexts, it must also include rhetorical sensitivity, interpersonal intelligence, and reflective practice.

A.K. Touloumakos (2023) critiques conventional communication training for reducing interaction to checklists – eye contact, body posture, or vocal variety. Such behavioral models risk oversimplifying communication as context-sensitive, strategic, and relational. Instead, A.K. Touloumakos advocates embedding communication within reflective practice, encouraging individuals to adapt strategies, evaluate effectiveness, and remain attentive to relational dynamics. This orientation aligns closely with soft skills, where adaptability, empathy, and metacognition are central.

Philologists' expertise in pragmatics and discourse positions them well for this integration. Pragmatic competence – understanding how meaning is negotiated in context, how speech acts shape relationships, and how language indexes social roles – translates directly into soft skills such as active listening, negotiation, and empathy. Embedding soft-skill development into philological training can thus yield a holistic communicative competence tailored to modern professional realities.

2.3. Soft Skills in Professional Settings

Professional environments where philologists work highlight the necessity of soft skills. In education, they must adapt communication to learners of varied ages, combining clarity with empathy and motivational strategies. In translation, cultural sensitivity and contextual awareness are as vital as linguistic accuracy. In editing and publishing, negotiation and teamwork are indispensable, since decisions often balance diverse perspectives. In cultural mediation, philologists bridge linguistic and cultural divides, requiring intercultural competence and relational tact.

In these contexts, soft skills amplify technical expertise. A precise translation that lacks cultural empathy may fail in communicative intent. A teacher proficient in grammar may still fail to engage learners without interpersonal sensitivity. A.-M. C. Williams (2015) showed that both employers and students perceive communication as the most critical yet most deficient soft skill among new professionals, underscoring the paradox: disciplines centered on language cannot assume communicative soft skills develop automatically.

2.4. Challenges in Teaching and Assessing Soft Skills

Teaching and assessing soft skills remains difficult. Unlike technical knowledge, which can be tested formally, soft skills are context-dependent and expressed differently across settings. B. Cimatti (2016) notes that assessment often relies on peer review, scenario-based tasks, or reflective self-evaluation rather than standardized tests. Similarly, W. Cukier et al. (2015) emphasize that pedagogical methods must be embedded in authentic contexts, not taught in isolation.

This challenge is acute in philological education, where curricula have long emphasized textual and theoretical analysis. To foster soft skills, institutions must redesign learning strategies. Approaches such as project-based learning, collaborative translation, role-playing, and simulations embed skills into real communicative practice. Group assignments can develop teamwork and negotiation, while reflective journals encourage students to examine and refine their communicative choices. Though less standardized, these approaches provide more authentic opportunities for growth.

2.5. Toward a Holistic Understanding

Taken together, these perspectives show that soft skills are not supplementary but integral to philological education. Effective professional communication requires more than grammatical mastery; it demands adaptability, empathy, reflective judgment, and cultural awareness.

Embedding these dimensions into philological curricula serves both employability and the discipline's intellectual mission: to analyze, mediate, and enhance human communication in all its complexity.

3. Communication as a Core Competence of Philologists

3.1. Communication as the Core of Philological Practice

Communication is both subject and medium of philological expertise. Philologists study texts, languages, and cultural practices, but they also communicate daily as teachers, translators, editors, or mediators. It is not an accessory but a defining element of professionalism. As O. Yazlovytska (2023) notes, linguistic mastery alone rarely ensures success; what distinguishes practitioners is the integration of interpersonal, cognitive, and emotional skills.

This centrality is heightened in today's globalized, digital world, where philologists engage across cultures and platforms. Calibrating register, negotiating meaning, and establishing rapport are indispensable. Yet employers often find that graduates, despite technical knowledge, lack communicative adaptability for dynamic contexts (Cukier, Hodson, & Omar, 2015). For language professionals, such gaps threaten credibility.

3.2. Dimensions of Communicative Competence

Communicative competence traditionally covered grammatical, sociolinguistic, discourse, and strategic skills (Hymes, 1972). Current views add interpersonal intelligence, teamwork, and reflexivity.

Adaptability. Philologists must shift discourse for students, peers, clients, or the public. Pragmatic awareness and sensitivity to expectations are essential. P. Bourdieu (1991) shows language is embedded in symbolic power.

Active listening and empathy. Teaching, translation, and mediation rely on perceiving tone and implied meanings. D. Goleman (1995) stresses empathy as central to trust.

Metacognition. Effective communicators monitor strategies and learn from interaction. A.K. Touloumakos (2023) highlights reflection as more durable than checklists.

Negotiation. Editorial and pedagogical contexts involve competing priorities. Tactful balance of assertiveness and cooperation is required; deficiencies remain common (Williams, 2015).

Collaboration. Many philological roles demand teamwork. J. Lave and D. Wenger (1991) show competence emerges from communities of practice.

Resilience. Emotional regulation and perseverance sustain clarity in dialogue (Cimatti, 2016).

3.3. Communicative Roles of Philologists

The centrality of communication is clear in diverse roles:

Education. Teachers must adapt to cognitive levels and cultural backgrounds, combining rigor with empathy (Goleman, 1995).

Translation. Beyond accuracy, translators negotiate equivalence and resonance, requiring diplomacy (Yazlovytska, 2023).

Editing. Editors manage texts and relationships, delivering feedback with sensitivity (Williams, 2015).

Intercultural mediation. Work in diplomacy or cultural institutions demands pragmatic adaptability and awareness of symbolic power (Bourdieu, 1991).

In each of the above mentioned cases, technical skills must pair with communicative ones to secure trust.

3.4. Evidence of Gaps and Challenges

Despite extensive training, philologists show communicative gaps. A.-M. C. Williams (2015) found communication both the most valued and the most lacking graduate skill. W. Cukier et al. (2015) documented mismatches in teamwork, negotiation, and adaptability. In this case, the key challenges are:

Cross-cultural complexity. Misreadings of politeness or nonverbal cues derail dialogue (Bourdieu, 1991).

Digital barriers. Online collaboration requires etiquette and clarity (Cimatti, 2016).

Stress. High pressures undermine correct regulation, which is vital for an effective dialogue (Goleman, 1995).

These patterns confirm that communication must be cultivated intentionally, not assumed.

3.5. Toward an Integrated Model

A holistic model of communicative competence should unite linguistic expertise, reflection, emotional intelligence, and collaboration. A.K. Touloumakos (2023) emphasizes reflective pedagogy, treating communication as adaptive practice. Role-plays, collaborative translation, and reflective journals provide authentic training.

This aligns with J. Lave and D. Wenger (1991) view of learning through participation. Embedding communication in real tasks ensures graduates acquire not only knowledge but also adaptive competence for twenty-first-century success.

In short, communication is the cornerstone of philological practice – the point where hard skills meet soft skills and expertise becomes professional impact.

4. Challenges in Professional Communication

4.1. Challenges in Professional Communication

Although philologists are characterized by high levels of linguistic and cultural expertise, they frequently encounter barriers in professional communication. These challenges rarely stem from insufficient technical knowledge but rather from the complex interplay of interpersonal, emotional, and contextual factors that shape interaction in professional settings.

Overemphasis on academic knowledge. A recurrent concern is the disproportionate weight given to textual analysis, historical linguistics, or literary theory in philological training. While these domains are indispensable, they can overshadow the cultivation of interpersonal sensitivity. J. Heckman and T. Kautz (2012) emphasize that cognitive and technical proficiency alone are insufficient for long-term career success. Instead, so-called “soft skills” – empathy, teamwork, and adaptability – often determine whether theoretical knowledge can be effectively applied. For philologists, the ability to present ideas persuasively, negotiate meaning in dialogic interaction, and mediate between perspectives is just as vital as mastery of textual detail. Without such competencies, highly specialized expertise risks remaining inaccessible to diverse audiences.

Cultural differences. In multilingual and multicultural environments, communication may falter due to divergent expectations regarding politeness, directness, or authority. G. Hofstede’s (2011) research on cultural dimensions demonstrates how differences in power distance, individualism, and uncertainty avoidance shape communicative behavior. Philologists who operate across borders (as translators, educators, or cultural mediators) must remain aware that pragmatic norms are not universal but culturally situated. Misalignment between communicative styles can result in misunderstanding, loss of trust, or even open conflict. For example, an academic accustomed to egalitarian debate may find their approach interpreted as disrespectful

in hierarchical cultures, while indirect politeness strategies may be misread as evasiveness in more explicit communicative traditions.

Digital communication barriers. The increasing reliance on digital platforms has profoundly transformed the landscape of professional interaction. Email, videoconferencing, and collaborative online tools demand conciseness, clarity, and sensitivity to evolving norms of digital etiquette. As D. Derks, A. Fischer, and A. E. Bos (2008) observe, the absence of embodied cues in digital communication heightens the risk of misinterpretation, especially regarding tone and intent. For philologists who often collaborate in geographically dispersed editorial projects, engage in online teaching, or mediate translations through digital tools, mastering these new communicative genres is essential. Failure to adapt not only hampers efficiency but can also jeopardize professional relationships that rely on trust, tact, and clarity.

Stress and emotional regulation. Professional communication is equally influenced by psychological strain. Teachers navigating diverse classrooms, translators working under tight deadlines, or editors mediating conflicting authorial voices often experience stress that compromises emotional self-regulation. P. Salovey and J. D. Mayer's (1990) foundational work on emotional intelligence demonstrates that the ability to perceive, understand, and manage emotions is integral to sustaining constructive interaction under pressure. For philologists, who are frequently expected to combine analytical rigor with sensitivity to interpersonal nuance, emotional resilience becomes a decisive factor. The ability to maintain composure, show empathy, and manage conflict without escalating tensions not only preserves collegiality but also ensures that intellectual contributions are heard and valued.

Generational expectations and professional identity. Another often overlooked dimension of communicative challenge involves intergenerational differences in professional settings. Younger philologists entering the workforce may prioritize collaborative dialogue, rapid feedback, and digital immediacy, whereas senior colleagues may value formal procedures, slower deliberation, and traditional authority structures. These differing orientations can produce friction if not addressed through conscious negotiation of expectations. At stake is not only efficiency but also the construction of professional identity: whether philologists see themselves primarily as solitary researchers, public intellectuals, or team-based cultural mediators influences their communicative style. Recognizing and accommodating such diversity is essential to preventing marginalization within academic and applied contexts.

Together, these challenges underline the necessity of deliberate soft-skills training in philological education. Without structured preparation, graduates risk being technically competent yet communicatively fragile, unable to thrive in dynamic and multicultural professional environments. Addressing these issues requires institutions to move beyond narrow technical training and recognize communication as central to the professional identity of philologists.

5. Discussion and Future Directions

Although the importance of soft skills in philological education is widely acknowledged, empirical research conducted specifically within philology remains limited. Recent studies published between 2022 and 2025 indicate a growing scholarly interest, yet significant gaps persist. This section synthesizes key findings and outlines promising directions for future research.

Thus, the key findings from recent philological literature show that:

Philology students and soft skills in local contexts. Evidence from Ukrainian higher education highlights the integration of communicative, collaborative, and critical-thinking competencies into philology curricula. L. Dovhan and O. Osaulchyk (2023) argue that professional

training must include systematic development of soft skills alongside linguistic and translation competence. Similarly, V. Kyrychenko (2023) demonstrates that courses such as *History of Ukrainian Literature*, when taught through interactive and collaborative methods, foster both communication and research capacities. These findings suggest that even discipline-specific subjects can become effective platforms for transferable skill development.

2. Technology-supported feedback and AI interventions. Digital feedback systems and AI-assisted tools are increasingly used to scaffold academic writing. A recent study on EFL postgraduate students showed that Grammarly Premium facilitated greater improvements in writing proficiency compared to traditional teacher comments, particularly for non-native speakers. Adaptive writing support systems likewise encourage self-regulated learning, with revision behaviour improving across multiple drafting cycles. Such findings align with broader trends in digitally mediated pedagogy, but more work is needed to determine the long-term effects of these tools in philological training.

3. Peer review and longitudinal designs. Mixed-methods studies confirm that peer review enhances sensitivity to rhetorical structures and improves feedback quality. Over an eleven-week intervention, low-proficiency English learners gained measurable confidence in critiquing peers' texts. Triangulated assessment models – combining teacher, peer, and self-evaluation – also show promise for translation tasks, producing a more holistic picture of both process and product. These insights underline the value of collaborative assessment and the need for research designs that extend beyond short-term interventions.

4. Systematic reviews highlight employability and curriculum gaps. C. Villegas (2024), in a review of literature on soft skills and employability, notes modest growth in publications yet identifies a persistent underrepresentation of humanities and philology. Other research in professional language education highlights a discrepancy: while employers consistently stress communication, adaptability, and teamwork, many curricula remain narrowly focused on technical mastery. The gap between institutional provision and workplace expectations continues to constrain graduates' career trajectories.

At the same time, there are still some gaps and challenges to be covered:

Lack of longitudinal data in philology careers. Few studies follow graduates into workplaces such as publishing, teaching, or translation agencies to determine which soft skills predict long-term success.

Fine-grained measures of quality. Research often reports global improvements in writing but rarely dissects which components – coherence, tone, accuracy, teamwork – are most sensitive to training.

Digital and hybrid communication. Virtual collaboration is now central to professional philology, yet little is known about how soft skills operate in online translation, editing, or academic conferencing.

Cultural and multilingual pragmatics. The role of politeness, code-switching, and intercultural negotiation in shaping communicative competence remains underexplored.

Technology integration and ethics. AI-assisted tools raise questions of bias, reliability, and student perceptions. Acceptance and trust appear as significant moderators of effectiveness.

Future Directions

Empirical intervention studies. Controlled trials should embed teamwork, negotiation, or feedback training directly into translation and writing courses, measuring impact on both product and process.

Longitudinal cohort tracking. Multi-year studies of philology graduates could identify which competencies most strongly influence employability and career satisfaction.

Digital and hybrid spaces. Research should analyze soft-skill deployment in remote translation projects, online editorial boards, and virtual teaching.

Technology-supported tools. Initiatives such as multimodal feedback systems (*Guerero-Sosa et al., 2025*) could be adapted to evaluate tone, fidelity, and stylistic nuance in philological practice.

Cross-cultural pragmatics. Comparative studies across linguistic and cultural settings would clarify how soft skills are interpreted and valued differently.

Curriculum integration. Project-based learning, co-teaching, and internships offer avenues for embedding soft skills systematically alongside linguistic training.

Ethical and psychological dimensions. Research should consider student stress, equity, and attitudes toward AI or peer evaluation to ensure inclusivity.

In sum, recent scholarship indicates that soft skills are increasingly recognized as essential to philological education, with peer review and digital interventions showing particular promise. Anyway, to advance beyond descriptive accounts, future research must adopt longitudinal, cross-cultural, and technologically nuanced designs. Only through rigorous empirical work will curricula be able to prepare philologists who combine linguistic precision with the relational, collaborative, and digital competencies required in contemporary professional life.

6. Conclusions

The analysis undertaken here demonstrates that soft skills are not peripheral to philological education but central to its intellectual and professional mission. Philologists, by virtue of their linguistic and cultural expertise, occupy a privileged position in shaping communication across academic, pedagogical, and applied domains. Yet the evidence consistently reveals a paradox: although these professionals are assumed to excel at communication, their formal training often leaves them underprepared for the interpersonal, collaborative, and adaptive demands of contemporary workplaces. This discrepancy highlights an urgent need for systemic integration of soft skills into curricula, not as optional supplements but as structural components of professional formation.

At a theoretical level, soft skills can be understood as multidimensional capacities that blend interpersonal awareness, cognitive flexibility, and emotional regulation. They function as dynamic resources that enable professionals to calibrate tone, negotiate meaning, and sustain constructive interaction in diverse contexts. For philologists, these abilities are inseparable from their disciplinary identity, since communication is simultaneously their object of study and their primary tool of practice. Developing reflective and adaptive communicative competence therefore enriches not only employability but also the broader scholarly and cultural relevance of philology itself.

Practically, this requires reimagining the curriculum as an ecosystem where technical knowledge and interpersonal abilities reinforce each other. Translation workshops should include training in negotiation and collaborative editing; literature seminars should encourage dialogic exchange and peer critique; digital communication tasks should cultivate pragmatic sensitivity in online genres. Such embedded design ensures that students experience soft skills as integral to their field rather than external requirements imposed by employers.

Looking forward, the challenge lies not merely in acknowledging the importance of soft skills but in operationalizing their development and assessment within higher education. Research must expand to track how particular competencies – such as adaptability, conflict resolution, or intercultural empathy – shape long-term career trajectories in teaching, publishing,

and cultural mediation. Equally important is the exploration of digital and hybrid communication, where professional interaction increasingly unfolds. By addressing these dimensions through empirical study, cross-cultural comparison, and technological innovation, philology can move beyond the rhetoric of skills gaps toward substantive curricular transformation.

In conclusion, embedding soft skills within philological education is both a pedagogical imperative and a disciplinary opportunity. Doing so will prepare graduates to navigate complexity with intellectual precision, cultural awareness, and interpersonal sensitivity, thereby affirming the enduring relevance of philology in a rapidly changing world.

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LEXICAL CODE OF CONTEMPORARY ENGLISH MEDIA TEXTS

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Summary

The article presents the in-depth study of the lexical code of contemporary English-language media texts as a system of verbal means that represent the key concepts of contemporary social discourse – “freedom,” “innovation,” “identity” and “crisis.” It analyses the formation and functioning specifics of the lexical code as a cognitive discursive mechanism for social, cultural and ideological meaning representation. The findings demonstrate that the vocabulary of modern English-language media not only reflects social processes, but also actively influences their interpretation, setting certain cognitive and emotional frameworks for information processing. The methodological basis of the study is a combination of cognitive-discursive, contextual-semantic, pragma– linguistic and content-analysis methods. The inquiry is based on the texts from British, French and American media outlets: BBC, The Guardian, The New York Times, CNN, etc. The research explored the lexical-semantic strategies employed to articulate the key concepts and described the manipulative potential of lexical selection in determining the ideological stance of media texts. The aim of the article is to investigate the lexical code of contemporary English-language media discourse as a multi-level system within which lexical units, emotionally colored vocabulary and lexical stylistic devices, neologisms and expressive means perform cognitive-conceptual, evaluative and manipulative functions. It was determined that the concepts of “freedom”, “innovation” and “identity” structure the media picture of the world, shaping social value orientations and affecting ideological priorities.

Key words: media discourse, concept, cognitive-discursive approach, semantic analysis, manipulative potential, identity, innovation, freedom.

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1. Introduction

Contemporary English-language media discourse is one of the most powerful tools for shaping public opinion, since it is through the language of mass media that events are interpreted, images of reality are created and certain value orientations are imposed. The vocabulary of media texts not only reflects social processes, but also actively influences their perception, setting the cognitive and emotional framework for information processing and interpretation. Therefore, the relevance of the present research lies in the fact that the English-language media discourse is constantly expanding and becoming the main source of information for the global audience. In this regard, the study of the lexical code, which reflects the mental, cultural and ideological parameters of modern society, is of particular significance.

The scientific novelty of the work lies in its comprehensive examination of the lexical code of contemporary English-language media texts as a system of verbal means that embody the dominant concepts of the modern era (freedom, crisis, innovation, identity), with regard to their cognitive and discursive potential.

Definition of the article objectives and specification of the research tasks. The aim of the study is to determine the features of the formation and functioning of the lexical code in contemporary English-language media texts. Particular attention is paid the definition of the concept of "lexical code" in the context of media discourse and the analysis of the main concepts, objectified in English-language media texts. To achieve the set goal, the study provides for the implementation of several interrelated analytical steps. In particular, it is necessary to identify the lexical and semantic means of implementing the concepts under study and characterize the manipulative potential of specific lexical choices in the media.

2. Materials and methods

The research methodology is based on a combination of discursive, cognitive-semantic, contextual and content analysis of media texts from British, French, and American publications (BBC, The Guardian, The New York Times, CNN, Reuters). In addition, the method of conceptual analysis was applied to determine the semantic content of key concepts, as well as elements of pragmatic linguistic analysis to clarify the communicative effect of lexical choice.

As a result of the analysis, it is planned to synthesize the existing approaches, summarize the findings regarding their practical applicability and conditions for effective application, as well as outline existing challenges and highlight potential directions for further research in this area.

3. Results and discussion

Lexical code as a reflection of the concept of modern media discourse

In modern linguistics it is believe that information processing is affected by such factors as subject-logical and connotative semantics, precedent phenomena and cultural background. All of these features are reflected in one of the basic concepts of linguistic and cultural competence, namely the linguistic cultural plane of the system of linguistic signs (the code).

The code is defined as a system of signs (symbols) and rules for transmitting information that has ethnic, socio-cultural or sub-cultural specificity. Scholars identify it as the means of systematization, organization and evaluation of objects and phenomena of reality, as well as one of the basic semiotic categories. According to the theory of linguistic relativity (E. Sapir and B. Whorf), codes influence the thinking and behavior of speakers of a particular language. Codes reflect person's environment and his/her consciousness and subconsciousness.

It should be noted that a particular linguistic and cultural code as a means of accumulating and transmitting culturally significant information about the universe in a condensed linguistic sign form does not cover the entire picture of the world, but only its certain fragment. The code is correlated with specific impressions, feelings and experiences, archetypal human ideas and therefore forms a coordinate system that implements cultural standards in texts.

The term "lexical code" is used to refer to a system of linguistic units that represent the value, emotional and cognitive orientations of a certain cultural community. Within the framework of media discourse, it operates as a "linguistic matrix" through which information is presented, structured and evaluated.

Contemporary English-speaking media is characterized by the manifestation of concepts that mirror global social processes: crisis, freedom, innovation, identity, truth. Each of them has its own set of linguistic representatives that form a specific lexical and semantic paradigm.

For example, the concept of "crisis" is verbalized through the lexemes *turmoil, instability, breakdown, emergency, threat*. Their use in headlines such as "Gaza's humanitarian crisis deepens" (BBC News), "The next big financial crisis may be brewing" (The Guardian), creates an image of uncertainty, anxiety and the need for immediate action. Their use in headlines such as "Gaza's humanitarian crisis deepens" (BBC News), "The next big financial crisis may be brewing" (The Guardian), creates an image of uncertainty, anxiety and the need for immediate action.

S. Onishchuk, a Ukrainian scholar, examined the concept of "Guerre" ("war" in Ukrainian) in French media. The study showed that the lexicographic analysis is an integral part of concept research in linguistic studies, particularly in the construction of frames. Since dictionaries reflect the most systematic and formalized information about word semantics, their analysis allows not only to record lexical variations, but also to determine which conceptual components are defined as central or as peripheral ones within a specific lexical field. The lexicographic analysis enables the identification of the evolution of the word meaning recorded in various dictionaries, as well as to determine the changes that occur in the meanings of terms under the influence of historical, cultural and social factors (Onishchuk, 2024: 50–51). The abovementioned concept was studied in the context of the Russian-Ukrainian war, with the thorough analysis of quotes from modern media discourse. In the quote by Volodymyr Zelenskyy, the metaphorical expression "lemalabsolu" is applied to refer to the aggressor, i.e., Russia, which is the enemy of Ukraine. Denotatively, the expression "lemalabsolu" indicates the concept of all-encompassing, uncontrolled evil that has no limits or compromises, which corresponds to traditional perception of an enemy in war, – source of an unconditional threat to the other side. From the point of view of connotation, the metaphor actualizes not only the physical threat, but also the moral one, demonizing the enemy as a source of destruction, which is reinforced by the term "génocide" in the context of accusations. Thus, the use of such units is not only a linguistic strategy, but also an important element of the cognitive map, which shapes the perception of war as a confrontation between two polar forces, one of which is absolute evil, while the other is a heroic victim defending its territorial integrity and moral values (Onishchuk, 2024: 53).

It should be noted that the translation of foreign media texts into Ukrainian is a challenging task as it requires not only the knowledge of source and target languages, but also the understanding of the specifics of the genre, audience and context. It is essential to attempt to reproduce not only the semantics, but also the emotional charge of media texts to ensure their effectiveness and adaptation to the Ukrainian reader. It was also determined that the successful translation of media texts requires the translator to be able to choose appropriate units that convey not only the lexical aspect, but also the stylistic nuances of the original text. The key factors of effective translation are the focus on cultural attributes and language adaptation to the perception of the Ukrainian audience (Shpota, 2023: 50).

Hence, the media not only inform, but also construct a picture of the world, dominated by a sense of instability. In this context, lexical code becomes a cognitive tool for social experience configuration.

Linguistic implementation of key concepts in media texts

In the modern world, every individual inevitably encounters a powerful flow of information. Undoubtedly, we obtain most of the facts and knowledge about the world through the media, since it is the media that participate in shaping a special individual picture of the world and are "the instruments of power and tools for implementing information dictatorship" (Timothy Nguyen, 2011).

In contemporary English-language media discourse, concepts function as semantic dominants through which the perception of reality is constructed. Their linguistic implementation is through the application of various lexical units, stylistic devices and expressive means – words, phrases, metaphors, epithets, etc, nominations that form lexical and semantic fields. Among the most representative concepts of the contemporary media discourse are “freedom”, “innovation” and “identity”, each having its own lexical paradigm that reflects the value orientations of the society.

The concept of “freedom” is key for the Western communicative space, since it is associated with basic democratic principles and human rights. Its linguistic realization in media texts is by means of the lexemes: *freedom, liberty, rights, independence*, as well as verbs with active semantic coloring – *to defend, to protect, to uphold, to fight for*. For example, headlines like “*What is the alliance defending freedom*” (The New York Times) or “*Freedom of speech: the cornerstone of free society*” (Cornell Review) demonstrate that freedom is conceptualized as a dynamic value that must be defended. Such vocabulary has a positive connotation, appeals to social unity and creates in the audience a sense of involvement in the struggle for common ideals. As noted in the article “Lexical Choice and Critical Discourse Analysis of Language Bias in Media”, the choice of words in the media is never neutral – it reflects the author’s position and establishes an ideological framework within which the event is interpreted (Das, 2011).

Another significant concept “innovation” functions as a linguistic marker of the current stage of civilization development, which is grounded in global technological advancement. In media texts, this concept is articulated through the lexemes: “*innovation*”, “*breakthrough*”, “*revolutionize*”, “*transform*”, “*next-gen*”, “*future*”, “*progress*”, “*invest*”. Metaphorical expressions such as “*AI revolutionizes healthcare systems*” (Direct Industry Emag) or “*Green innovation reshapes future cities*” create in the reader the image of global progress, world transformation and continuous development. Verbs such as “*revolutionizes*”, “*reshapes*”, “*transforms*” act as linguistic indicators of change and outline a positively marked discourse of the future. According to the study “English Media Discourse of the Early 21st Century: Lexical Innovations”, novel topics in the media are characterized by a high frequency usage of neologisms and metaphors, which serve to stimulate the imagination and shape an optimistic view of the world (Boyko, 2023). Thus, the concept of innovation is verbalized through the vocabulary of dynamics, modernization and technological breakthrough, reflecting the craving of modern society for renewal.

The concept of “identity” assumes a central role in contemporary media discourse, since it is through it that the processes of social and cultural self-identification are understood. In mass media texts, it is constructed through the lexical units: “*identity*”, “*diversity*”, “*inclusion*”, “*belonging*”, “*equality*”, “*gender identity*”, “*cultural heritage*”. The study “*Language, Power, and Identity in Media Discourse*” emphasizes that language in the media serves as a means of constructing social identity and defining the boundaries between “one’s own” and “others” (Krishna, Prasad, 2025). Thus, the concept of “identity” is linguistically objectified through the positively colored vocabulary of tolerance, but at the same time it can acquire the tone of conflict when combined with the concept of crisis – in the expressions such as “*identity crisis*”, “*identity politics*”, which emphasize the complexity of modern identification processes.

Manipulative potential of lexical choice in the media

One of the key characteristics of contemporary media discourse is its manipulative potential, conveyed primarily through the lexical units. Media language possesses the capacity not only to describe reality, but also to shape it, controlling the interpretative framework of perception. The choice of words, their connotation and the syntactic organization of the text create a certain lens through which the recipient evaluates the events.

Manipulative techniques are widely used to achieve psychological, political, financial and physical coercion. In fact, manipulation is violence, but it is also more treacherous since it affects the subconscious, changes our perception of the world, serves the needs of other people and depletes our individuality (*Prabhat Indora, 2025*).

Manipulation in media discourse is manifested through a number of lexical mechanisms. The most obvious is the nominative choice: the same event can be represented by different lexical units, evoking opposite reactions. Internet manipulative techniques are associated with the use of additional textual, linguistic and audiovisual components of manipulation. In this context they receive a certain hyper textual composition and, with the help of psychotechnologies, channel our attention in the desired direction (*Prabhat Indora, 2025*). For instance, the phrase “freedom fighters” creates a positive image of freedom fighters, while rebels or insurgents are associated with aggression and threat. The employment of such lexical choices carries the ideological attitude that directs the reader's emotional perception. The study “Lexical Choice and Critical Discourse Analysis of Language Bias in Media” confirms that the choice of words in journalistic materials directly affects the perception of the event, since it reflects the author’s attitude and structures the ideological subtext of the text (*Das, 2011*).

Another manipulation tool is evaluative vocabulary, which sets the emotional tone of the statement. Thus, reports on socio-political events often employ words such as “*threaten*”, “*deepen*”, “*collapse*”, “*turmoil*”, which create the atmosphere of danger. Headlines like “*Global crisis deepens as conflict spreads*” do not simply inform, but impose a sense of urgency and fear, which is a typical technique for influencing the emotional state of the audience. Manipulations work because they use psychological mechanisms that force people to perceive information uncritically (*Nagorna, 2024: 66*).

Metaphorization underpins the process of conceptual framing since it performs a cognitive function and has a pronounced manipulative effect. Metaphors such as “*battle against climate change*” or “*the economy is healing*” allow us to perceive abstract processes through specific images – war or the human body. As a result, a simplified but emotionally rich picture of the world is formed.

Framing, i.e., creating an interpretive framework for events through lexical selection, merits special scholarly consideration, as it functions as a critical mechanism through which media texts structure reality and influence audience perception. For instance, the use of the words “*crisis*”, “*challenge*”, “*war*”, “*fight*” in the same context can set a narrative of confrontation, while “*opportunity*”, “*progress*”, “*partnership*” – the one of development. Thus, vocabulary determines not only the factual, but also the axiological structure of the text, reinforcing particular ideologies. In this sense, the lexical code of the media is a means of conveying meanings, reproducing not only informational, but also power-ideological relations.

In general, the manipulative function of the lexical code is to create a certain emotional and cognitive effect intended to shape the preferred interpretation of events. Through lexemes with positive or negative connotations, metaphors, frames and stylistic transformations, the media create a linguistic picture of the world in which social ideals, conflicts and values are entrenched. Thus, the lexical code of contemporary English-language media discourse is not only a tool for representing concepts, but also an effective mechanism for influencing mass consciousness.

4. Conclusions

The conducted study provides a comprehensive research of the phenomenon of lexical code in contemporary English-language media texts as a system of linguistic means that verbalize key concepts of contemporary media discourse. The undertaken analysis illustrates that lexical code functions not only as a tool for nomination and conveyance of information, but also as a powerful mechanism for social, political, and cultural reality conceptualization.

It was determined that the concepts of “freedom,” “innovation,” and “identity” are dominant in the English-language media space, since they reflect the fundamental values and semantic guidelines of contemporary Western society. Their linguistic expression is articulated through the selection of lexemes with a distinct evaluative and connotative potential, the active use of stylistic devices, in particular metaphors, other nominations, neologisms and phraseological units. The concept of “freedom” is objectified through the vocabulary of struggle and defense of democratic rights. The concept of ‘innovation’ – through lexical units denoting movement, breakthrough and technological development, whereas the concept of “identity” – through the vocabulary of social belonging, diversity and tolerance.

The results of the analysis showed that the choice of lexical means in media discourse performs not only a representative but also a manipulative function. It is through employed lexical units with certain connotations that media texts influence the emotional and cognitive spheres of the recipient, shaping the desired interpretative framework for the perception of events. This is manifested in framing, evaluative vocabulary, metaphorization and semantic opposition of concepts (freedom vs. threat, innovation vs. crisis, identity vs. conflict). Thus, lexical code is not only a reflection of reality, but also a means of its construction.

Methodologically, the study was based on a cognitive-discursive approach, which allowed us to reveal the relationship between the linguistic form, conceptual content and social context. The method of contextual-semantic analysis revealed the peculiarities of the functioning of key lexemes in specific media texts; the use of critical discourse analysis made it possible to trace the connection between lexical choices and ideological attitudes.

Therefore, the lexical code of contemporary English-language media texts appears as a complex semiotic system that integrates cognitive, value-based and ideological parameters of social communication. Its study lays the foundation for further scientific research in the identification of the patterns of linguistic influence, the dynamics of the concept sphere of media discourse and the development of critical thinking in the perception of media messages.

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AUTHENTIC LITERARY ENGLISH TEXT AS A TOOL FOR TEACHING ANALYTICAL READING

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Summary

The purpose of this article is to discover the importance of analytical reading of authentic literary texts in foreign language teaching, to reveal the difference between analytical and basic reading, to characterize three main models of engaging with the text while reading analytically in a foreign language, to cover the benefits of using authentic literary texts in analytical reading, to highlight the stages of working with authentic literary texts in language learning and to introduce the tasks and exercises designed to be completed during the Pre-reading, While-reading, and Post-reading stages.

Key words: foreign language teaching, foreign language learning, English language learner, learning process, language education strategies.

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1. Introduction

In the context of new approaches and changes in foreign language teaching and language education strategies, analytical reading of authentic literary English texts becomes an important and integral aspect of foreign language learning, while the concept of ‘analytical reading’ requires rethinking, and its implementation as an integral component of learning demands the development of a number of methodological principles. Analytical reading of authentic foreign literature broadens students' outlook and develops their logic, intellect and cognitive interests. It allows students to understand the foreign language in its socio-cultural context, teaches them to recognise its stylistic diversity and understand its expressive potential.

2. Analytical Reading vs. Basic Reading

Analytical reading plays a leading role in understanding reality, studying other cultures, and forming a positive attitude towards the country and people whose language is being studied.

The primary difference between analytical reading and basic reading is the level of engagement and the goal of the reader. Basic reading focuses on literal word recognition and surface-level comprehension, while analytical reading is an active, critical process aimed at achieving a deep, thorough understanding of the text's structure, arguments, and underlying meaning (See Table 1).

Table 1

Analytical Reading vs. Basic Reading

Feature	Basic Reading (Non-Critical)	Analytical Reading (Critical/Deep)
Main Goal	to get the gist or surface information (What does the text say?).	to achieve deep understanding, analysis, interpretation, and evaluation (How does the text work and what does it mean?).
Focus	vocabulary, literal meaning, basic plot/facts.	author's purpose, intent, structure, arguments, literary devices, tone, and cultural context.
Process	passive reception; simply recognizing and restating key remarks.	active, reflective, and analytic engagement; breaking down the text into its parts and relating them to the whole.

Information obtained from texts for analytical reading (factual, sociocultural, historical etc.) stimulates students' independent thinking, encourages spontaneous speech and develops the ability to express their thoughts, subjective views, interests and life position (*Bouvet, 2002*).

3. Three models of interaction with a text

With the right approach to analytical reading, students develop artistic taste and learn to analyse and generalise, give arguments and debate. When reading analytically in a foreign language, you engage with the text across multiple layers, often categorized by *three main models*:

1. *Linguistic (Language Model)*. This model focuses on the language itself, treating the text as a linguistic product.

Lexical and Grammatical Analysis: paying close attention to complex sentence structures, verb tenses, word choice, and idiomatic expressions to understand how they contribute to meaning.

Stylistic Analysis: examining rhetorical and literary techniques (like metaphor, irony, narration style) to interpret the text consciously and build advanced language skills.

Pattern Recognition: identifying repeated words, images, contrasts, or sentence structures to understand underlying themes or the author's preferred stylistic tendencies.

2. *Cultural (Cultural Model)*. This treats the text as a source of information about the target culture.

Contextualization: researching the social, political, and historical context in which the text was written to fully grasp its implications.

Cultural Insight: interpreting characters, settings, and events in relation to the foreign culture's norms, values, and literary traditions. This helps learners get an experience of the "real context" of the language.

3. *Personal Growth (Reader-Response Model)*. This model focuses on the interaction between the reader and the text.

Critical Evaluation: judging the validity, fairness, and logic of the author's arguments or message.

Forming Personal Opinions: expressing attitudes, describing personal experiences, and integrating the new information with existing knowledge. This makes the study of the language more memorable and personalized (*Alptekin, 2002*).

4. The benefits of using authentic literary texts

Authentic literary texts are invaluable resources for analytical reading in foreign language learning. They are defined as texts created by native speakers for native-speaking audience, not specifically for language teaching. They reflect the natural language, cultural nuances, and social contexts of the real world, making them valuable for gaining a deeper understanding of a language and its associated culture. Examples include any published literature, from classic novels to contemporary short stories (*Gholami, Alavi, 2018*).

Using these texts for analytical reading helps bridge the gap between classroom learning and real-world language use, providing rich linguistic and cultural input.

The benefits of using authentic literary texts are:

- *exposure to authentic language and style*: they contain natural language, including idiomatic expressions, colloquialisms, diverse linguistic styles, and complex sentence structures that are absent in simplified materials; provide a full range of discourse features, enhancing students' linguistic competence;

- *cultural and intercultural competence*: literary texts offer deep insights into the target culture's values, customs, history, and social issues; encourage learners to compare the text's culture with their own, promoting intercultural awareness and competence;

- *motivation and engagement*: authentic texts are often more interesting, engaging, and relevant than contrived classroom materials, as they deal with universal or topical themes like love, identity, or social issues;

- *development of analytical and critical thinking skills*: analytical reading, a cognitive skill, stimulates deep thought and critical approaches to the text; encourages learners to look beyond surface meaning to analyze elements like theme, tone, author's purpose, symbolism, and narrative structure;

- *preparation for the "real world"*: by dealing with unedited and challenging material, students develop the strategies needed to cope with real-life language outside the classroom (*Durak, 2024*).

5. The stages of working with authentic literary texts

The stages of working with authentic literary texts in language learning typically follow a three-part framework: *Pre-reading (Pre-text)*, *While-reading (Text)*, and *Post-reading (Post-text)*. This structure is designed to guide students from preparation and comprehension to deeper analysis and creative application.

1. *Pre-reading (Pre-text) Stage*. The primary goal of this stage is to prepare students for reading the text. Pre-reading activities, also known as pre-text or before-reading activities, are tasks or exercises designed to be completed before a student reads a text. Their primary purpose is to prepare the reader's mind for the content, activate prior knowledge, build necessary vocabulary, and set a purpose for reading. This makes the reading process more effective, engaged, and comprehensible.

To activate background knowledge:

- *brainstorming*: students quickly list anything that comes to mind about the topic, key vocabulary, or the title of the text.

- *K-W-L Chart*: Students complete the "K" (What I Know) and "W" (What I Want to Know) columns before reading. The "L" (What I Learned) is completed afterward.

- *anticipation guides*: a set of statements related to the text's themes or content are presented. Students agree or disagree with each statement and discuss their reasoning. This sparks curiosity and makes them think critically about the topic before they even read it.

- *quickwrite/free writing*: students write non-stop for a short time (e.g., 2-5 minutes) about a topic or question related to the text.

These activities help students connect new content to what they already know, reducing cognitive load.

To preview and predict:

- *text feature walk*: students examine the title, headings, subheadings, captions, images, graphs, bolded words, and introduction/conclusion to predict the text's content and structure.

- *skimming and scanning*: students quickly look over the text to identify main ideas, key terms, or general organization without reading every word.

- *making predictions*: based on the title, cover, or text features, students predict what the text will be about, what problems might arise, or what information they expect to find.

- *picture/illustration analysis*: students analyze any visual aids and discuss their connection to the text's potential content.

These tasks help students get a general sense of what the text is about and how it's organized.

Building Vocabulary and Concepts:

- *vocabulary introduction*: the teacher presents and defines 5-10 essential, high-utility words from the text, often with examples.

- *concept maps/webs*: students create a visual diagram connecting related ideas and concepts about the topic.

Activities focused on key language ensure comprehension isn't blocked by unknown words.

2. *While-reading (Text) Stage*. This stage focuses on active engagement with the text and developing essential reading strategies for comprehension.

Core While-Reading Strategies:

- *annotation*: this is the most direct form of active reading. It involves marking up the text with symbols, highlights, underlining, and notes in the margins. Readers may use: underlining/highlighting for main ideas, key terms, or important details; question marks for confusing or unclear parts; exclamation points for surprising or important information; marginal notes to paraphrase, summarize a section, make connections, or record reactions/questions;

- *predicting*: periodically pausing at natural breaks (like chapter or section endings) to anticipate what will happen next or what information will be presented. Readers should confirm or revise their predictions as they continue reading;

- *clarifying/monitoring*: the act of self-checking for comprehension. If a section is confusing, the reader stops, rereads, uses context clues to define unfamiliar words, or breaks down complex sentences;

- *visualizing*: creating mental images of the characters, setting, events, or processes described in the text to deepen engagement and understanding;

- *questioning*: asking "W" questions (who, what, where, when, why, how) about the content to keep the mind focused and seek deeper meaning from the text;

- *paraphrasing/summarizing*: pausing after a paragraph or section to briefly restate the main idea in one's own words. This is a powerful check for understanding and retention.

Interactive While-Reading Activities. These activities are often done in a classroom setting and promote social interaction and collaboration during the reading process:

- *information transfer*: students complete a graphic organizer, chart, or story map (e.g., for characters, setting, problem, solution, or cause/effect) as they read, extracting and synthesizing information directly from the text;
- *True or False Statements*: students are given a list of statements and must read the text to verify if they are true or false, providing textual evidence to justify their choice;
- *Jigsaw Reading*: a text is divided into parts, and different groups read different sections. They complete a task on their section, then teach or share their learned information with the rest of the class, collectively creating a complete picture of the whole text;
- *“Say Something” Technique*: in pairs or small groups, readers stop at pre-determined points (or when a question arises) and take turns sharing a thought, prediction, or question with their partner before continuing to read;
- *peer discussion*: at specific intervals, students pause to share their thoughts, insights, or confusing points with a partner or group. This includes activities like Character Analysis to track traits and motivations as they are revealed;
- *Directed Reading-Thinking Activity (DRTA)*: the instructor guides the reading by pausing at strategic points to ask students to make predictions, read to a certain point to confirm them, and then make new predictions. This process is repeated until the reading is complete (Verkhovtsova, 2022).

3. *Post-reading (Post-text) Stage*. Post-reading, or post-text, activities are designed to help students consolidate, reflect on, and respond creatively or critically to the text they have read. These activities move beyond simple comprehension checks to encourage deeper analysis, application, and connection to other skills (speaking, writing, etc.).

Comprehension and Recall Activities. These activities check how well students understood the main ideas and details of the text.

Summarizing/Retelling:

- *verbal or written summary*: students write or orally present a summary of the text. For a story, they might use the “Somebody Wanted But So Then” framework;
- *sequencing*: students re-order shuffled sentences, paragraphs, or pictures that represent the main events of the text.

Comprehension Questions/Quizzes:

- *answering questions*: the teacher asks a set of questions, moving from literal details (Level 1) to inferential meaning (Level 2), and finally to applied, critical thinking questions (Level 3);
- *student-generated questions*: students create quiz or discussion questions for their peers to answer.

Graphic Organizers:

- *Story Map*: students complete a map with the main elements of a narrative text: characters, setting, plot, conflict, and resolution;
- *Venn Diagram*: used to compare and contrast two elements from the text (e.g., two characters, or the topic in the text versus the student's own experience);
- *Flow Chart*: used for sequential or factual texts (like procedures or cause-and-effect relationships) to show steps or connections.

Critical Thinking and Discussion Activities. These activities encourage students to analyze the content and form their own opinions.

- *class discussions*: teacher-led or student-led discussion on the text's themes, the author's message, point of view, or structure;
- *reader response*: students write or discuss their personal reactions to the text, characters, incidents, or ideas;

- *Text-to-Self, Text-to-Text, Text-to-World connections*: students relate the reading to their own life, another text, or real-world events;

- *agree/disagree statements*: students discuss and justify their position on various statements related to the text's content or underlying issues;

- *language and cultural analysis*: analyzing literary style, linguistic features, and rhetorical devices (e.g., figurative language); discussing the cultural context and its implications.

Creative and Integrated Skills Activities. These tasks use the text as a springboard for practicing other language skills (speaking, writing, and performance).

Role-Playing/Drama:

- *reader's theater*: students read from a script (often a modified version of the text) to act out the story;

- *acting out*: students act out a scene from the text or a hypothetical follow-up scene (e.g., a meeting between characters years later);

Writing/Innovation:

- *alternative endings*: students creatively write a new ending for the story;

- *character diary/letter*: students write a diary entry from a character's point of view or a letter between two characters;

- *creating a text type*: students transform the text into a different format, such as a news report, a movie review, a comic strip, or a wanted poster.

Presentations and Projects:

- *group presentations*: students prepare and deliver a presentation on a specific aspect of the text or its topic;

- *creating media*: students find or create images, music, or videos that relate to the text and present them as a collage or project.

- *retelling from a new perspective*: students retell the story from the point of view of a different character.

- *vocabulary and grammar review*: activities that use words and phrases from the text to reinforce language learning, such as gap-filling exercises, paraphrasing key sentences, or creating new sentences using the target vocabulary (Grabe, Stoller, 2011).

6. Conclusions

In summary, analytical reading transforms the learning process, shifting it from passive information reception to active engagement and critical enquiry. It goes beyond mere comprehension, training the mind to analyse complex arguments, evaluate evidence and synthesise diverse perspectives.

For English language learners, analytical reading is the bridge that connects basic language knowledge to advanced proficiency, academic competence and true intellectual mastery of the language. Analytical reading improves more than just vocabulary and grammar; it also fosters a deep understanding of literary techniques, cultural nuances and the intentions of authors. This allows learners to participate in high-level academic and professional discourse with confidence.

Crucially, the habits developed through analytical reading – critical thinking, focused attention and the capacity for deep thought – extend far beyond the classroom. These are fundamental skills for effective citizenship, informed decision-making and professional success in an information-saturated world. Therefore, embracing this method is a vital investment in lifelong learning and intellectual autonomy, not just an educational preference.

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RETHINKING DECOLONISATION AND RESILIENCE OF UKRAINIAN HIGHER EDUCATION IN THE CONTEXT OF WAR AND GLOBAL PLATFORMS

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Summary

The large-scale Russian invasion has led to a significant escalation in the necessity for a comprehensive institutional and intellectual restructuring within Ukrainian higher education, necessitating a systematic decolonisation process. This study analyses how the ongoing armed conflict fundamentally reshapes academic objects, models, and interpretive frameworks, extending beyond mere decolonisation, while concurrently exploring new theoretical approaches necessary for knowledge production and institutional resilience. The prevailing circumstances are marked by substantial infrastructural deterioration, with a considerable number of educational institutions encountering bombardment and shelling, in conjunction with an active information war and epistemic aggression from Russia. Therefore, the core objective of this paper is to investigate the intersection of decolonisation and institutional resilience, proposing a theoretical framework that integrates decolonisation, deconstruction, and the strategic utilisation of global platforms. The findings highlight that the transformation process must focus on the crucial role of genuine academic autonomy as a precondition for quality and resilience, as well as the necessity of establishing a comparative decolonial perspective that links Ukraine's struggle with diverse global experiences of colonial and post-colonial realities. This approach moves beyond the passive absorption of historical injustices to shape a future-oriented post-colonial framework actively. Furthermore, the paper demonstrates the vital function of global platforms and digital resistance (e.g., internet memes) in reinforcing institutional stability, challenging aggressor narratives, and ensuring the ethical integration of media literacy. The study concludes by asserting that the crisis must be methodologically transformed into an advantage for the universal critique of imperial control.

Key words: decolonisation, academic autonomy, institutional deconstruction, global platforms, epistemic aggression, post-colonial framework, digital resilience, higher education.

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1. Introduction

The large-scale Russian invasion of Ukraine has brought about an urgent and sudden necessity for significant transformation within the Ukrainian higher education system, necessitating a rapid and systematic process of decolonisation. This institutional and intellectual overhaul occurs amidst immense physical destruction and human displacement, with recent reports indicating that “3798 education institutions have suffered bombing and shelling” and “365 education institutions have been destroyed completely” (Talanova et al., 2023).

The decolonisation process in Ukrainian academia cannot be viewed in isolation; the global theoretical discourse must inform its trajectory (Starkova et al., 2025). The objective is not only to shed Soviet and post-Soviet legacies but to establish a robust, internationally compatible, and ethically grounded system (Ivanenko, 2023; Hrynevych et al., 2023). In this context, the argument is made that “To decolonise knowledge successfully, scholars should not focus just on their Ukrainian experiences as being unique. Instead, there is a need to establish connections between the various experiences of colonial and postcolonial studies” (Starkova et al., 2025). Such comparative perspectives are crucial, as they echo work that challenges conventional narratives of rupture. For instance, the archaeological finding that “European contact’ was not a defining event” for continuous Indigenous presence (Beranek et al., 2025) focuses on the “moral ecologies” that underpin colonial encounters (Trigg & Mrozowski, 2024).

The twin priorities of achieving independence and resilience necessitate a focus on institutional governance and pedagogical integrity. The enhancement of university autonomy is of the utmost importance, yet its successful implementation remains challenging despite formal legislation (Nalyvaiko, 2025; Oleksiyenko, 2020). As Nalyvaiko observes, “University autonomy, comprising academic, organisational, financial, and staffing dimensions, is a fundamental principle for ensuring the quality, responsiveness, and resilience of higher education systems” (Nalyvaiko, 2025, p. 105). Moreover, the information war and the rise of global digital platforms are indispensable contexts for this re-evaluation. In the contemporary context of the Ukrainian media education sector, there is a growing recognition of the pivotal role that new content and information literacy play in engaging audiences within the context of a constantly evolving information landscape, characterised by intense competition and conflict. This assertion is supported by the findings of Ivanova et al. (2022). Concurrently, global digital platforms are reconfiguring social processes and engendering regulatory dilemmas, thereby illustrating their capacity to “fundamentally change (urban) political processes, as their gatekeeping principles provide a powerful frame by which projects are selected” (Chiappini & de Vries, 2022).

This article synthesises the challenges of wartime educational continuity, the imperative of decolonisation, and the regulatory complexities of the digital age in order to propose a cohesive model for the future development and resilience of Ukrainian higher education. This analysis of the current situation forms the foundation of this endeavour.

2. Literature review

A review of the literature on Ukrainian higher education reveals a fundamental dichotomy: severe systemic challenges, documented in the extant research, that have been inherited from the imperial past; and legislative progress towards European integration, which is verifiable. This section explores this critical dialogue, detailing the persistence of colonial legacies and documenting the momentum of ongoing reforms.

2.1. The persistence of colonial and corrupt legacy: the suppression of meritocracy

Systematic review of the extant literature consistently confirms the pervasive nature of system challenges inherited from the Soviet era, directly linking institutional inertia to the persistence of corruption. Despite the legal guarantees of academic freedom, the pursuit of critical inquiry and creativity remains constrained by the lingering influences of a totalitarian political culture (Oleksiyenko, 2020; Oleksiyenko, 2022). The most substantial manifestation of this legacy is the pervasive phenomenon of academic non-compliance and fraud, which serves as a formidable apparatus for sustaining elite control and subduing authentic meritocracy.

- Corruption as an imperial control mechanism. Corruption and academic dishonesty have been confirmed as widespread phenomena, encompassing bribery, fraud, and non-objective assessment (Bilyk et al., 2024; OsvitaIN, 2020). These practices are widely viewed not merely as isolated ethical failures but as part of a systemic crisis rooted in the Soviet-era system of nomenklatura, where privileges were conferred by status, not merit (OsvitaIN, 2020). In the media sector, this phenomenon translates into economic control, as evidenced by research demonstrating that the quality of “journalism skills in the regional media” is frequently undermined by “the impact of the business environment,” wherein financial and political factors exert a significant influence on editorial policy (Starkova, 2022).

- The documentation of fraud and elite capture. The practice of acquiring academic qualifications through both legal and illegal means is evidenced by the persistent problem of academic plagiarism, fabrication, and falsification in dissertations (Zubyk et al., 2021; NAQA, 2025). The comprehensive documentation of large-scale academic misconduct underscores the close association between fraud and mechanisms that enable political and financial elites to obtain degrees and privileges without scholarly effort (Zubyk et al., 2021).

- Insularity and global disconnect. The issue of academic insularity is further compounded by a national focus and limited proficiency in international research languages (Ivanenko, 2023). A substantial body of research has identified considerable challenges associated with the implementation of English as a Medium of Instruction (EMI). Tytarenko (2021) asserts that “EMI teaching nowadays has become one of the key elements of the strategy for the internationalization of higher education in Ukraine” (Tytarenko, 2021, p. 93). Nevertheless, the effective transition remains problematic due to a paucity of teachers with sufficient language skills and inadequate student preparedness. It is therefore essential to address the “existing challenges, preserve and improve the efficiency of EMI teaching in Ukraine” (Tytarenko, 2021, p. 93). In a similar vein, difficulties persist in the domain of English for Specific Purposes (Hildebrant, 2025).

2.2. Documented progress and reform momentum: The European horizon

Despite the entrenched inertia of the corrupt legacy, academic literature also documents significant, deliberate progress, demonstrating that the legal and institutional foundations for change are already in place (Brintseva, 2025).

- Legislative Triumph of Institutional Autonomy: Since 2014, Ukraine has taken resolute steps towards democratising the academic environment (Nalyvaiko, 2025). The 2014 Law on Higher Education formally guaranteed extensive institutional autonomy. However, its practical implementation remains inconsistent due to bureaucratic regulation and ineffective safeguards against political interference. Nalyvaiko emphasises that autonomy “is not merely a declarative legal principle, it is a dynamic institutional condition that depends on the effective interplay of law, governance, and academic culture” (Nalyvaiko, 2025, p. 113).

- Deepening European integration: Ukraine has demonstrated a resolute commitment to a democratic, pro-European system. This institutional alignment is a clearly articulated and

documented strategy to replace the outdated post-Soviet model with international standards (Ivanenko, 2023; Talanova et al., 2023).

- Pedagogical and institutional resilience. The sector has demonstrated notable resilience during wartime (Popović, 2025; Polovko & Glotov, 2023). Moreover, pedagogical reforms, most notably the New Ukrainian School (NUS), emphasise the cultivation of critical thinking, civic responsibility, and competency-based education, marking a pronounced departure from the Soviet-era practices of rote learning. In their 2023 publication, Hrynevych, Linnik and Herczyński observe that the NUS reform “builds on advanced pedagogical experience, best education practices, European competency frameworks and the promotion of national values,” with a focus on “competency-based content for teacher professional development, safe learning environments, inclusion and the digitalisation of education” (Hrynevych et al., 2023).

3. Materials and methods

The present article is of a review nature, and its foundation is the synthesis and interpretation of extant theoretical constructs and expert opinions. A methodological approach grounded in comparative epistemology is utilised. The methodology employed provides a comprehensive picture of the research progress.

3.1. Theoretical framework: comparative epistemology

The primary methodological approach that has been selected for this study is the transnational comparative approach. The selection of this method was made with the strategic intention of positioning the Ukrainian experience, which is currently defined by the trauma of war and colonisation, within a global framework of postcolonial studies. This approach fulfils a critical intellectual function by circumventing the analytical isolation that frequently ensues from the “syndrome of unique suffering”. Instead, it employs the Ukrainian struggle as a pivotal lens to establish connections with and glean insights from diverse decolonial experiences worldwide, thereby ensuring “connections between the different experiences of colonial and postcolonial studies” (Starkova et al., 2025).

The methodology involves the creation of a theoretical model for reform that is future-oriented and practically engaged, rather than solely focused on the historical grievances of the past.

3.2. Expert dialogue and source material

The study draws upon the personal reflections and professional insights of the co-authors, Hanna Starkova, Letizia Chiappini, and Stephen Albert Mrozowski. The core material comprises:

- Conceptual analysis. A thorough examination of the concepts of decolonisation, deconstruction and digitalisation is imperative, particularly in the context of global social media platforms.

- Synthesis of published works. A critical analysis of publications by the authors and external scholars concerning academic integrity, educational reform, and digital media has been undertaken (Bilyk et al., 2024; Ivanova et al., 2022; Törnberg & Chiappini, 2020; Trigg & Mrozowski, 2024).

- Moreover, the methodology integrates comparative insights drawn from the experiences of other 2024–2025 NIAS fellows, as follows:

Critique of institutionalised history. In her study, Nadia Ait Said-Ghanem examined the repatriation of cultural artefacts from European museums to Iraq, offering a framework for evaluating the colonial histories embedded within Ukrainian museums and archives (2024). This research emphasises the political imperative for revising cultural ownership narratives.

Voicing silences and war crimes. Emir Suljagić calls for research into war crimes against Bosnian Muslims that have received scant attention (2024). He asserts that the struggle against aggressor narratives is inextricably linked to the imperative of documenting genocidal acts and giving voice to the “silences” imposed by aggressor states.

The subtlety of colonialism. In his research on the integration of colonial commodities into Dutch households (2024), James Symonds proposes a theoretical framework for analysing the persistent and subtle influences of post-Soviet practices on the intellectual and academic norms of daily life in Ukraine.

These comparative insights serve as methodological tools to broaden the analytical scope, moving the study beyond national exceptionalism towards a universal critique of imperial control.

4. Results and discussion

The tripartite framework of decolonisation, deconstruction, and digitalisation (global platforms) is proposed as a roadmap for the systemic transformation of Ukrainian academia, addressing both the intellectual inheritance of colonialism and the war's current physical and digital challenges and risks.

4.1. Decolonisation: a comparative imperative against “prehistory”

The Russian imperialist war against Ukraine must be academically understood as a fundamental continuation of colonialism (*Oleksiyenko, 2022*). This perspective is informed by the work of Stephen Mrozowski, who views colonialism as a phenomenon that is “still lived every day” by Indigenous communities in North America. His work highlights that academic research must be practically engaged and focused on the future, transforming its output into a tool for political struggle and societal intervention (*Starkova et al., 2025*).

This comparative lens is built on two key concepts:

- **The critique of “prehistory”.** Professor Mrozowski stresses that academic research must be practically engaged and focused on the future, challenging colonial concepts like “prehistory”, an idea that’s deeply embedded in a part of settler colonialism that takes away their future (*Schmidt & Mrozowski, 2013*). Russia’s rejection of Ukrainian statehood and history can be interpreted as an intellectual act of “prehistory”, signifying an endeavour to repudiate its political future. In this context, the decolonisation of Ukrainian science must similarly look towards the future.

- **Challenging epistemic violence.** It is imperative that research actively counteracts the Russian epistemic violence that seeks to erase Ukrainian history and intellectual achievement.

- **Future-focused intervention.** Academic output must evolve beyond the confines of historical documentation to become a catalyst for political intervention, such as the documentation of war crimes (Suljagić’s context) and the formulation of strategies for cultural reconstruction. The focus must shift towards the active construction of a postcolonial future, as opposed to a passive contemplation of the colonial past.

Consequently, the successful decolonisation of Ukrainian scholarship is contingent upon its capacity to establish connections between its experience and these diverse global colonial struggles, thereby ensuring its research is a practically engaged force for sovereignty.

- **Moral ecologies of dominion.** This analysis extends to the environmental and relational impacts of colonialism. Trigg and Mrozowski (2024) explore the manner in which European colonisers' relationships with land and resources were informed by their “moral ecologies”, which endowed actions with a “sense of right and wrong” derived from ontologies. It is

asserted that the colonial model, predicated on “dominion and improvement”, fundamentally conflicts with Indigenous ontologies (Trigg & Mrozowski, 2024). Within the Ukrainian context, the destruction of infrastructure and ecocide caused by the war must be conceptualised as a confrontation of moral ecologies: the Russian imperial ontology of dominion versus the Ukrainian ontology of resilience and self-determination. The work on “Recognizing Indigenous persistence by dating extensive low-density Indigenous occupations across the AD 1480–1630 radio-carbon plateau in Wellfleet, Massachusetts” (Beranek et al., 2025) offers a model for Ukrainian scholars to document and assert the nation’s historical continuity despite imperial disruption.

4.2. Deconstruction: targeting institutional and digital coloniality

The process of decolonisation necessitates the deliberate deconstruction of prevailing structures that perpetuate the colonial legacy. Letizia Chiappini identifies three central theoretical angles for this essential decolonial transformation. Each of these angles points to a specific institutional realm in which the post-Soviet structure must be challenged.

- **Institutional spaces and cultural practices.** The deconstruction of colonial histories must commence with their integration within museums, archives and cultural practices. As Nadia Ait Said-Ghanem’s work on cultural heritage return suggests, this is a necessary space to initiate a shift in discourses concerning “who owns what” (Starkova et al., 2025). In Ukraine, this process entails a systematic deconstruction of Soviet-era narratives within historical institutions, accompanied by a recognition of the systemic underfunding and lack of autonomy that have contributed to the stagnation of these institutions.

- **Spatial dynamics, migration, and frontiers.** Chiappini calls for a critical examination of the concepts of migration, mobility, borders and frontiers as sites of intervention where “existing structures” can be altered (Starkova et al., 2025). The war has profoundly reshaped Ukraine’s spatial dynamics, necessitating an academic response that engages with internal displacement, the preservation of cultural heritage in occupied territories, and the re-imagining of national borders within a European context. The conventional national-centric curriculum must be deconstructed to embrace these fluid, transnational realities.

- **Ecology and inequality as colonial exploitation.** This area is of critical importance with regard to further development. Chiappini posits that the concepts of ecology and sustainability (including digitalisation) must be deconstructed in war zones, where existing inequalities are “even more now exploited” (Starkova et al., 2025). The environmental crisis and destruction (eco-cide) caused by the war must be explicitly framed as an act of colonial exploitation, from the destruction of the Kakhovka dam to the mining of agricultural land. This framework must also encompass the exploitation of the digital sphere, where new content and information literacy are crucial for resisting dominant narratives and challenging Russian epistemic violence (Ivanova et al., 2022). The question of climate change becomes meaningless without first addressing the primary violence of war and the underlying colonial arrangements that facilitate the destruction of land and resources. Deconstruction demands that Ukrainian academia integrate environmental studies into a decolonial framework, challenging the notion that these topics are separate from political and military conflict.

This deconstruction phase directly challenges the “pseudo-privileged” structures of the post-Soviet landscape by demanding that the absence of genuine academic freedom and the inadequate focus on global research be directly addressed as the “existing structures” that must be dismantled. This challenge necessitates the integration of non-traditional research objects, such as internet memes, which have emerged as key tools for students to communicate, build resilience, and articulate political commentary against the backdrop of information warfare (Ivanova et al., 2022).

Concurrently, researchers have called for moderation in the implementation of neoliberalism as promised by global digital platforms. Törnberg and Chiappini's analysis of Airbnb illustrates this point: "Discourse analysis demonstrates how Airbnb's white proprietors utilise racial stereotypes to appeal to white guests, exoticising difference, accentuating foreignness, and conceptualising communities as consumable experiences for an external group. In turn, white visitors consume these cultural symbols to decorate their own identities, incorporating colonial tropes of brave white adventurers exploring uncharted territories. However, these conquests are no longer over gold and ivory, but rather over a sandwich at a local bodega" (Törnberg & Chiappini, 2020, p. 566). It is evident that this observation is notable even in the context of the similarity in skin colour.

The following aspects can be regarded as equally significant for the Ukrainian Academy:

- **Deconstructing institutional control.** The struggle for autonomy is a process of political deconstruction. Nalyvaiko emphasises the discrepancy between de jure and de facto independence, and the necessity for reforms that address "contradictory legal norms, excessive bureaucratic regulation, and the absence of effective safeguards against political interference" (Nalyvaiko, 2025, p. 105). This deconstruction must target financial control. An analysis of the regional media sector demonstrated that the quality of journalism skills in the regional media is frequently nullified by "economic and political factors, the biased editorial policy" (Starkova, 2022, p. 262).

- **Deconstruction of academic objects: the role of Internet memes.** The imperative of decolonisation, resilience, and adaptation to global platforms demands a rethinking of academic objects, particularly concerning media content. The present study focuses on internet memes as a tool for media consumption and a mechanism for socio-cultural communication and resilience. Starkova posits that internet memes in Ukraine are fundamentally about trying to "understand what's happening in the world and what to expect" (Starkova et al., 2025). They function as an instrument of digital resilience and ironic engagement with trauma.

- **Deconstructing digital coloniality.** The deconstruction mandate extends into the digital realm, the focus of Chiappini's work. She emphasises that, although global digital platforms facilitate connectivity, they can also perpetuate colonial structures. In the study referenced above, Törnberg and Chiappini (2020) demonstrated that such platforms encourage entrepreneurs to pursue the extraction of value from a global symbolic economy. These entrepreneurs market the urban frontier to a transnational middle class, thereby responding to questions of class, gender and ethnicity, and potentially driving cultural displacement. This research provides a crucial theoretical warning. In the context of Ukraine's post-war reconstruction and integration into the global digital economy, it is imperative to proactively deconstruct the colonial discourse embedded in international platforms. This is essential to prevent the intellectual and cultural displacement that has characterised historical periods of global expansion and domination.

4.3. Global platforms: new methodologies for narrative reclaiming

The third core area is the strategic use of global platforms to develop new, resilient methodologies. Chiappini identifies memes, semiotics and discourse as "interesting angles" that could be used to present an alternative narrative. The empirical reality of the information war validates this approach.

- **Grassroots resistance and agency.** Using memes is a practical, grassroots way of resisting dominant narratives, which are often Russian. This focus on the "precarious and contingent nature of infrastructures" challenges the need for rigid, formal methodologies (Starkova et al., 2025).

• **Civic platforms and digital resilience.** This flexibility has an institutional counterpart in civic crowdfunding, which Chiappini and de Vries (2022) studied as urban digital platforms (UDPs). They found that UDPs can bypass corporate gatekeeping by supporting “civic and grassroots initiatives in areas where local state agencies play a significant role in shaping urban development patterns,” demonstrating their capacity to fundamentally transform urban political processes (Chiappini & de Vries, 2022). This offers a vital model: Ukrainian academic and civic institutions can use decentralised digital platforms to secure funding, mobilise solidarity and bypass compromised bureaucratic structures, thereby strengthening resilience.

• **Media mission and future orientation.** Future media professionals must embrace digital platforms. Research on Ukrainian media students confirmed that “the media industry, which is constantly in the midst of a powerful information war and is currently at war, sees new content and information literacy as important tools for engaging audiences in the practice of active public position and understanding of the news” (Ivanova et al., 2022, p. 18), signalling a generational shift towards digital expertise and a heightened sense of professional purpose that is inherently future-oriented.

This grassroots resistance approach is powerfully supported by empirical research into the worldview and media habits of Ukrainian students. An analysis of surveys conducted among S. Kuznets KhNUE students in 2021–2022 demonstrated that:

- Students are highly interested in social networks and electronic media as indispensable tools for professional activity.
- Around 75% of respondents actively use TikTok, the News Feed and Instagram Stories.
- The professional qualities prioritised were expertise and personal independence, forming the basis for the journalist's role in information warfare (Ivanova et al., 2022).

The focus on digital platforms and independence shows that the younger generation is already using “precarious and contingent infrastructures” to challenge dominant narratives. Digitalisation provides a methodology for epistemic justice, enabling marginalised voices to be documented outside of rigid institutional channels.

5. Conclusions

The integrated imperative of decolonisation, deconstruction, and engagement with Global Platforms must drive the rethinking of Ukrainian academia.

The research demonstrates that the challenges faced by Ukrainian science can be used as a critical lens through which to view and learn from global postcolonial and decolonial experiences, particularly those that highlight the persistence of Indigenous peoples (Beranek et al., 2025) in the face of imperial narratives. This perspective highlights the need to deconstruct post-Soviet institutional practices by fully and unconditionally implementing genuine academic freedom and institutional autonomy. The absence of these is the primary threat to the system's quality and resilience (Nalyvaiko, 2025). Finally, the strategic use of global platforms – both in deconstructing their embedded colonial biases (Törnberg & Chiappini, 2020) and harnessing their capacity for civic and grassroots resilience (Chiappini & de Vries, 2022) – provides the methodology for fostering a future-oriented academic environment.

Prospects for further research. Future work should focus on developing concrete, comparative methodologies for the decolonial digitisation of academic knowledge. Specifically, the effectiveness of decentralised Urban Digital Platforms (UDPs) in countering Russian disinformation and fostering epistemic justice should be explored. Furthermore, a deeper analysis of the specific institutional reforms required to grant genuine financial and staffing

autonomy in the Ukrainian higher education system is warranted, including the development of quantifiable indices of academic freedom and anti-corruption compliance.

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**CONSEQUENCES OF RUSSIAN COLONIAL POLICY
FOR THE SPEECH PRACTICE OF UKRAINIANS
(on the adverbial equivalents of the word example)**

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Summary

The Ukrainian language, as the language of the people enslaved for several centuries, has always been subject to negative colonial influence. The policies of the Russian imperial and later Soviet reigns were particularly detrimental to it. One of the consequences of such actions is the mixed Ukrainian-Russian speech created on the territory of Ukraine, which is also called “surzhyk”. Negative changes have even affected the sphere of transitional units of the language system, among which there are also actively formed in dynamics adverbial equivalents of the word – differently formed combinations that approach the adverbial lexical-grammatical class of words in the Ukrainian language system.

These findings, based on the material of Sashko Stolovyi’s “Orybyn. Roman pro stepnoho cholovika” (2024), raise intriguing questions regarding the nature and extent of the gradual, targeted destruction of the Ukrainian language system by the Russian colonial regime, which led, in particular, to a distorted perception of their language by Ukrainians. Despite his obvious mastery of the norms of the Ukrainian literary language, the author of the analysed novel actively uses mixed Ukrainian-Russian speech forms, mistakenly considering them elements of the local dialect.

In one text, only within the adverbial equivalents of the word, dialectal or uncodified and literary Ukrainian speech units interact with mixed Ukrainian-Russian speech forms with varying degrees of activity. On the one hand, there are significantly more literary Ukrainian units than mixed Ukrainian-Russian forms (28 vs. 16). However, on the other hand, there are considerably more mixed Ukrainian-Russian forms than distinctly dialectal (16 vs. 3) and uncodified Ukrainian forms (16 vs. 2). In mixed Ukrainian-Russian forms, phonetic, lexical, lexical-phonetic, lexical-morphological, and lexical-phonetic-morphological interference is observed.

Key words: mixed Ukrainian-Russian speech (surzhyk), interference, dialectisms, Slobozhan dialects, transitional units, the Ukrainian language.

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1. Introduction

The several hundred-year history of the Ukrainian people has always been full of vicissitudes that posed a threat to Ukrainian statehood and the existence of the Ukrainian people as such. Unfortunately, modern times are no exception, when Ukrainians are fighting for their independence in a bloody war unleashed by Russia.

The Ukrainian people suffered particularly devastating effects during the imperial and later Soviet occupation. The main determinants of the nation – territory, culture, and language, came under enormous threat. In addition to the attempts made to exterminate the Ukrainian nation physically, the totalitarian system actively worked to erase any signs of Ukrainian identity, including through linguicide (*see, in particular, Shevelov, 1989*). We still observe the consequences of all these actions, primarily in the use of a subcode¹ created on the territory of Ukraine – a mixed Ukrainian-Russian speech, which is increasingly designated “surzhyk”².

As is known, the most active changes in the language system are experienced at its lexical level, while grammar and phonetics remain the most stable and are difficult to be influenced by extralinguistic factors. However, colonial pressure on the Ukrainian language was of such magnitude that it also affected the transitional elements of the language system, those structures that are formed in dynamics. Especially, we mean the adverbial equivalents of the word³ – differently designed combinations that are on the border of a proper word, on the one hand, and a free or phraseological combination, on the other hand, and also approach the adverbial class of words in the Ukrainian language system.

Mixed Ukrainian-Russian speech (surzhyk) has repeatedly become the object of study by both Ukrainian and foreign researchers (*for example, Bracki, 2009; Del Gaudio, 2010; Dziubyshyna-Melnyk, 2010; Khentshel & Briuhhemann, 2016; Khentshel & Taranenko, 2015; Kuznietsova, 2023; Masenko, 2019; Mozer, 2016; Rysich-Shafraniets, 2022; Sira et al., 2020; Sokolova, 2021; Stavyska & Trub, 2007; Taranenko, 2008*). Although scholars raise various issues of the functioning of surzhyk in Ukrainian territories (from linguistic, historical, stylistic, sociolinguistic, etc., points of view), there are still few studies devoted to the research of mixed Ukrainian-Russian, literary and dialectal speech units interaction in one text/discourse (*among which, however, are Del Gaudio, 2008; Dyka, 2011; Dyka & Shvedova, 2023*). The examination of mixed Ukrainian-Russian (surzhyk) elements in the structure of adverbial equivalents of the word is being carried out for the first time.

The purpose of the article is to trace the correlation and interaction of surzhyk, dialectal or uncodified and literary speech units within the same text, using the example of adverbial equivalents of the word, taking into account the colonial influence of Russian on the Ukrainian language.

Methods. The research was carried out within the framework of the descriptive method using the method of continuous sampling, distributional analysis, contextual analysis, and functional analysis – to identify and select the factual material, as well as phonetic, morphemic, dialectological, contextual and stylistic analyses with elements of the comparative method – for the decomposition of specific manifestations of the use of mixed Ukrainian-Russian, literary and dialectal or uncodified Ukrainian units.

Data. The research was conducted on the material of “Oryryn. Roman pro stelepnoho cholovika” by Sashko Stolovy (2024). The novel is set in the village of Koziivka, Bohodukhivskiy District, Kharkiv Region. The story is primarily told on behalf of the main character of the work, Demian Oryryn from the Kozyk family, whose entire life is filled with historical events of the 20th century, namely: the Soviet occupation of Ukraine, the Holodomor-genocide of 1932–1933, World War II, the repressions of the totalitarian regime against the Ukrainian

¹ This study will not address the issue of bilingualism.

² Given the still negative connotation of this term, we will mostly use the phrase “mixed Ukrainian-Russian speech”.

³ For more information about these units, see our dissertation research (Sukhovets, 2024).

people, and other unlawful actions committed by the colonial regime against Ukrainians. In addition, the story also covers the declaration of independence of Ukraine and the events of the 2000s. Linguistically, the region outlined in the work represents the Slobozhan dialects of the southeastern dialects. It is important to note that the novel, as declared in the annotation, is written based on the local dialect.

2. Interaction of various speech types elements in the structure of the adverbial equivalents of the word

The studied text presents, in different quantitative proportions, elements of mixed Ukrainian-Russian speech (16 units), Ukrainian dialect (Slobozhansky) speech (3 units), uncodified Ukrainian speech (2 units) and Ukrainian literary speech with the conditional inclusion of colloquial elements in this group (28 units). Let us consider each of the named types of units separately.

Mixed Ukrainian-Russian units

Several units have a Russian noun base and are orthographically as close as possible to the Russian pronunciation norm, such as: (1) *з вніманієм* ‘з увагою’ // ‘with attention’, (2) *з дєцтва* ‘з дитинства’ // ‘since childhood’, (3) *на спор* // *for a bet* (in Ukrainian, this combination corresponds to the phraseological unit *битися об заклад* // *to make a bet*), (4) *од удівлення* ‘від (од) здивування’ // ‘from astonishment’ (lexical interference). Compare in sentences:

(1) “Папкó встає, з усім **вніманієм** слухаючи, люди тож притихли, слухають” (Stolovy, 2024: 214);

(2) “**З дєцтва** Орина недолюблювала кіз, воно і вредне, і хитрозделане, і дійок усього дві, як наче бог її спеціально обділив” (Stolovy, 2024: 29);

(3) “Бува, [на вулиці] хлопці й дівчата співають чи шутять, качаюця по землі, борюкаюця, усі кучою душать одне одного. І кричать там, наче хто кого ріже. [...] А ше грають **на спор**. Це вобще саме популярне” (Stolovy, 2024: 22–23);

(4) “Мільчиха Оксана **од удівлення** аж рота розкрила, чи від сікретно почутого, аж холодчик із рожевим хроном упав із ложки на білу скатертину між курячої печінки та оселедця з цибулею” (Stolovy, 2024: 40).

It is indicative that the prepositional element of the enumerated adverbial equivalents of the word is distinctly Ukrainian. The opposite situation (a Russian prepositional element in Ukrainian phonetic form and a literary Ukrainian noun base) is observed only in one case – in the unit (5) *от радості* ‘від (од) радості’ // ‘from joy’ (phonetic interference):

(5) “А в Сергія в очах потемніло, вуха заклало. **От радості**. Шо це ж він перший раз самостоятільно аж за село їхатиме на велові. Оце атас!” (Stolovy, 2024: 246).

The unit (6) *раді прілічія* ‘(за)ради пристойності’ // ‘for grace’ has a completely Russian phonetic design (lexical interference):

(6) “Іти їм [хлопчикам] якраз через центр, за канторой. Потім переходять дорогу. Треба сначала подивиця наліво і направо. Конешно, у селі це не означає, шо там машина може їхати. Просто **раді прілічія** до асфальтірованої дороги” (Stolovy, 2024: 208).

More units combine different types of interference, such us: (7) *в отвіт* ‘у відповідь’ // ‘in response’, (8) *все время* ‘весь час’ // ‘all the time’, (9) *для настроєнія* ‘для настрою’ // ‘for cheer’, (10) *з годами* ‘з роками’ // ‘over the years’, (11) *з жадностю* ‘із жадністю / із жадібністю’ // ‘with greed’, (12) *з осторожностю* ‘з обережністю / з осторогою’ //

‘with caution’, (13) з приключеннями ‘з пригодами’ // ‘with adventures’, (14) на швидкості ‘на швидкості’ // ‘at speed’, (15) по черзі ‘по черзі’ // ‘in turn’, (16) без слів ‘без слів’ // ‘without words’.

The mixed adverbial equivalent of the word (7) в отвіт ‘у відповідь’ // ‘in response’ has a common initial prepositional element for Ukrainian and Russian languages and a Russian noun base in Ukrainian phonetic figuration (lexical-phonetic interference):

(7) “Всі остановились у своїом празнуванні, завмерли на три сікунди, щоб же ж роздивицца гостю й поздоровити **в отвіт**” (Stolovyi, 2024: 40).

In the mixed unit (8) все время ‘весь час’ // ‘all the time’, the pronominal element все // all, common to Ukrainian and Russian, agrees with the Russian full-meaning noun element время // time:

(8) “Ці два місяці в нас нема покою, бо воно так вала звідти, ошущеніє, шо **все время** [дрохви] між собою гризуться – фиркають, гиркають, чиркають” (Stolovyi, 2024: 39).

Exactly such an orthographic expression (and not the dialect врем’я) leads us to believe that this is a mixed adverbial equivalent of the word, which formally copies the Russian form, but is phonetically perceived as Ukrainian (lexical-phonetic interference).

In the mixed Ukrainian-Russian unit (9) для настроєнія ‘для настрою’ // ‘for cheer’, the initial prepositional element for both languages is combined with the Russian noun stem partly in the Ukrainian ([o] instead of [a]) phonetic figuration (lexical-phonetic interference):

(9) “Періодически мужики підносять носілки й набирають совком гору глини з-під ніг то у Свирйонши, то в Грачовши. Досипають їм **для настроєнія** туди анігдотів, історій, гуморесок і присвистувань” (Stolovyi, 2024: 210).

The mixed adverbial equivalent of the word (10) з годами ‘з роками’ // ‘over the years’ is a vivid expression of lexical-phonetic interference, well then Ukrainian initial prepositional element з combines with Russian noun stem in Ukrainian phonetic figuration (fricative [r] instead of the normative for Russian explodent [r], Ukrainian “okannya” instead of the normative for Russian [a] in the pre-stressed position):

(10) “Дід Іван Величко шибурний з дєцтва. [...] **З годами** він, канєшно, підріє і в голові клєпка завєлася, та як ото на дубках собиратьься з мужиками, то гудять до послідньої звїзди на небі” (Stolovyi, 2024: 115).

In the mixed unit (11) з жадністю ‘із жадністю / із жадібністю’ // ‘with greed’, we consider lexical-morphological interference. Even though the autonomous noun element of the specified adverbial equivalent of the word жадність is recorded in the “Dictionary of the Ukrainian language” in twenty volumes (SUM-20) with the marking *підко* // rarely, it can still be perceived in the text as a lexical unit borrowed from the Russian language. In addition, the mixed nature of this unit is indicated by the double interference of the genitive: on the one side, we observe the non-normative for Ukrainian, but normative for Russian, suffixal [o] instead of [i], however, on the other side, we also deduce the normatively expressed orthographically for Ukrainian flexion -ю instead of the normative for Russian form of expressing softness of [т] in the suffix and flexion -ью:

(11) “Последне тепло літа перед осінню не тільки школяра заставля **з жадністю** одщитувать кожен тиждень волі і свободи” (Stolovyi, 2024: 210).

A similar situation can be observed in the mixed adverbial equivalent of the word (12) з осторожністю ‘з обережністю / з осторогою’ // ‘with caution’, only in this case the autonomous noun element is of Russian origin⁴ (lexical-morphological interference):

⁴ Compare the adjectival and adverbial forms осторожный and осторожно respectively in the

(12) “Так інтересно, як кінь з **осторожністю** то понюха листочок, то Сергія, то руку” (*Stolovyi, 2024: 200*).

The mixed adverbial equivalent of the word (13) з *приключеннями* ‘з пригодами’ // ‘with adventures’ has a distinctly Russian basis, in the full-meaning element of which the original spelling is “corrupted” only by the Ukrainian letter *i* (lexical-phonetic interference):

(13) “Ми рушили вперед. Туди, де Козиків ждали-ждали і жданики поїли вареники на пару з м’ясом, перемашені жареною цибулькою. Де Папко з присущою йому захопливістю розказуватиме Мамі, [...] як вони з **приключеннями** съодні вицепили у величезного глибочезного козіївського лісу трохи осик, щоб хата красива була” (*Stolovyi, 2024: 198*).

In the mixed Ukrainian-Russian unit (14) на *скорості* ‘на швидкості’ // ‘at speed’, the common to both languages initial prepositional element is combined with the Russian noun stem, demonstrating, together with the Ukrainian “okannya” and the orthographically expressed Ukrainian flexion, lexical-phonetic-morphological interference:

(14) “Проїждять лісовою ліщиною згори вниз до ставка, **на швидкості**. Страшно. Але класно, бо ді [дід] ніколи не стратить. Ді зна, шо робе” (*Stolovyi, 2024: 184*).

The mixed adverbial equivalent of the word (15) по *очереді*⁵ ‘по черзі’ // ‘in turn’ combines the Russian noun stem partly in the Ukrainian phonetic figuration (the [o] and [i] sound like this in the original) with the phonetically figured Ukrainian initial prepositional element *по* (Russian normative pronunciation is [па]) (lexical-phonetic interference):

(15) “Попереду люди все ближче возами їдуть до Козіївки. І видно, шо несколько возів підряд. Та й по голосу чути – люди знаомі. [...] І так інтересно, шо їдуть і співають пісню **по череді**” (*Stolovyi, 2024: 33*).

Only phonetic interference is also observed in unit (16) без *слов* ‘без слів’ // ‘without words’, which presents the normative Russian [o] instead of the normative Ukrainian [i] in a closed syllable:

(16) “**Без слов** понятні моменти взаімпідтримки, коли треба підсікти, піддять, похвалицца уловом” (*Stolovyi, 2024: 187*).

It is interesting to note that such a feature – the preservation of the old [o] in newly formed closed syllables – is defined by L. Stavytska and V. Trub as one of the features of the phonetic surzhyk system (*Stavytska & Trub, 2007: 73*).

Dialectal and uncodified Ukrainian units

The only dialectal Ukrainian elements in the adverbial equivalents of the word were found to be isolated, recorded barely in the units (17) до *последнього* ‘до останнього’ // ‘to the end’, (18) із *опаскою* ‘з побоюванням / з острахом’ // ‘with fear’ and (19) з *осердя* // approximately *due to anger* (with some caveat).

The adverbial equivalent of the word (17) до *последнього* ‘до останнього’ // ‘to the end’, despite its similarity to the Russian noun base, can be considered a dialectal unit, since Ukrainian dictionaries record the noun *последній* as dialectal (*see, in particular, Saharovskiy, 2013: 136; SUM-20*):

(17) “Вона [Марічка] все винесла, діда Кочергу панькала **до последнього**” (*Stolovyi, 2024: 62*).

“Materials for the dialect dictionary of Central Slobozhanshchyna (Kharkiv region)” (*Saharovskiy, 2013: 36*).

⁵ We are not sure whether it is appropriate to interpret the noun *очередь* as a dialect (*see Saharovskiy, 2013: 39*).

The adverbial equivalent of the word (18) *із опаскою* ‘з побоюванням / з острахом’ // ‘with fear’ is clearly dialectal, as it is reflected in the remark to the interpretation of its noun element (see Saharovskyy, 2013: 30; SUM-20):

(18) “Дем’ян, **із опаскою** дивлячись на збори бабуні, натягував кожушину” (Stolovyyi, 2024: 109).

The author’s use and our research perception as an adverbial equivalent of the word combination (19) *з осердя* // approximately *with anger* are controversial, compare in the context:

(19) “Розмахуючи дрином, вона [Марфа Степанівна Ковалиха] **з осердя** гецула одного кабанюру, другий процвігав і кинувся за першим у ліс навздогін” (Stolovyyi, 2024: 46).

On the one hand, perhaps, we observe an idiolect feature of the author of the novel, if we interpret the combination *з осердя* as an adverbial equivalent of the word with the approximate meaning ‘due to anger’ and associate its noun element with the lexeme *сердитість*, since the lexeme *осердя* is not recorded in dictionaries with the remark *діалектне* // *dialectal*. On the other hand, the analysed combination can be used in the figurative meaning ‘from the centre of something’ or generally be based on the meaning with the marking *анатомічне* // *anatomical* ‘серозний замкнутий мішок, в якому розташоване серце; перикард’ // ‘serous closed sac in which the heart is located; pericardium’, that is, in the meaning ‘from the heart’ (see SUM-20).

In addition, the text records one adverbial equivalent of the word with an uncodified noun element, namely (20) *у насупленні* // approximately *in scowling*, compare in the contexts:

(20) “І ті гарбузи понад соном тягнуця хтозна-куди в безкрай, **у** своїм безмовному **насупленні**, як сусіди, шо межу ніяк не поділять” (Stolovyyi, 2024: 33).

The orthographic figuration of another uncodified unit (21) *в сікунду* ‘у секунду’ // ‘in a second’, presumably, can be explained by a greater degree of narrowing of [e] to [и] in the unstressed initial syllable, which is a vocalism characteristic of the southeastern dialects (see Zhylyko, 1966: 242–243):

(21) “Поміж темних стовбурів, шо **в сікунду** чось стали стіной, як козацька січ, перегородивши тобі врага, шо так подлю хруснув десь там, шось мелькнуло” (Stolovyyi, 2024: 231).

Literary Ukrainian units

Although the analyzed text contains a fairly wide range of mixed Ukrainian-Russian units, there are significantly more “literary” adverbial equivalents of the word, including: (22) *без сил* // *without strength*, (23) *в безсонні* // *in insomnia*, (24) *в дитинстві* // *in childhood*, (25) *в секунду* // *in a second*, (26) *від роду* // approximately *from childhood*, (27) *все одно* // *all the same*, (28) *з дня на день*⁶ // *from day to day*, (29) *з захопливістю* // *with passion*, (30) *з інтересом* // *with interest*, (31) *з року в рік* // *from year to year*, (32) *з силою* // *with force*, (33) *з шанною* // *with respect*, (34) *з юності* // *since youth*, (35) *зі страху* // *due to fear*, (36) *із підозрою* // *with suspicion*, (37) *із розгону* // *from run*, (38) *на поміч*⁷ // *for help*, (39) *про запас* // *in store*, (40) *просто так* // *for no special reason*, (41) *раз через раз* // *time and again*, (42) *рік у рік* // *from year to year*, (43) *так само* // *alike*, (44) *ще раз* // *again*. Perhaps, this is because “the vocabulary of the modern Ukrainian literary language in all its essentials represents the southeastern dialects” (Zhylyko, 1966: 25). Let us present the following adverbial equivalents of the word in contexts:

⁶ Tautological forms are considered adverbial equivalents of the word since they can potentially change their spelling and “transform” into complex words, compare *віч-на-віч* // *face to face*, *де-не-де* // *here and there*, *пліч-о-пліч* // *shoulder to shoulder*, etc.

⁷ See also the forms *помоч* and *помощ* in (Saharovskyy, 2013: 112).

(22) [Баба] “Впала **без сил** за окопом. І вже нема чим і дихнути, не те що кликати, благати” (Stolovyi, 2024: 133);

(23) “Перші роки [Катруся] благала свою матір узять її на Всеношну. Та не брала, одказувала «ше мала». І **з року в рік** лежала тихесенько вночі **в безсонні**, вистежуючи крізь щілинку з-під ковдри мамчині збирання [...]” (Stolovyi, 2024: 110);

(24) “Цей раз у кімнаті стояла така тиша, хоча й зайшли до Оринці – так її звала мати **в дитинстві** – усі одинадцятко” (Stolovyi, 2024: 176);

(25) “Нізвідкіля велика материнська захитна сила далась Орині **в секунду**” (Stolovyi, 2024: 45);

(26) “Баба сіла коло печі на ослінець, і було видно по її очах, що немає там прощення нікому, її чорні **від роду** брови вороними крилами скочили на красчках од чувства недосказаного” (Stolovyi, 2024: 109);

(27) “Та якби крьосна й не знала нічого, то **все одно** й так понятно повністю” (Stolovyi, 2024: 18);

(28) “Вся родина **з дня на день** ждала отелу, і воно, канєшно, більше паніки, ніж діла” (Stolovyi, 2024: 54);

(29) “Ми рушили вперед. Туди, де Козиків ждали-ждали і жданики поїли вареники на пару з м’ясом, перемашені жареной цибулькою. Де Папко з присущою йому **захопливістю** розказуватиме Мамі, [...] як вони з приключеннями сьодні вицепили у величезного глибочезного козіївського лісу трохи осик, щоб хата красива була” (Stolovyi, 2024: 198);

(30) “Виходить, як коли бачиш людину, що **з інтересом** робе яку справу, і напочатках кажеця, що воно діло остолопне й нікудишне, то не колотись лишнього, дай йому мовчки доробить своє, а ще бідовіше буде, як перепитаєш – що, мо’, помогти. І буде в селі не одне благородне діло, а декілька” (Stolovyi, 2024: 106);

(31) “**З силою**, при нажатті на себе, язичок на ручці [дверей] опустився до свого законного низу” (Stolovyi, 2024: 43);

(32) “На возі була тіки сама труна з Марічкою Лаврентіївной, по батькові Говтвою. Знану повитуху та шептуху. Знахарку. Яку шанували всі і в останню путь так само **з шаною** проводили” (Stolovyi, 2024: 64);

(33) “Мені **з юності** мати приказували, що найдорожчі думки не дуже повторюй уголос, бо з кожним разом, що виліта словами в світ, думка обезцінюєця” (Stolovyi, 2024: 177);

(34) “Орина трохи ухмільнулась. Та й у Ковалихи тіки й задача була – настроїть дівчину на лад. Бо така, аж синя, стояла **зі страху**” (Stolovyi, 2024: 47);

(35) “Дем’ян **із підозрою** йшов через хату слухати щорічну історію, яку, ма’ть, уже п’ятнадцятий раз чує, бо баба все ніяк не втомиться її повторювати. **Рік у рік**” (Stolovyi, 2024: 109);

(36) “Коли Дем’ян **із розгону** заплигував на лопасть [млина], то Павлик умить хапав зворотню опускную лопасть і додавав їй своїй ваги, аби Козикового підняло до верхів” (Stolovyi, 2024: 86–87);

(37) “Рябця вже й дух простиг, разом із діточками, одне пір’я й лишилось **на згадку**” (Stolovyi, 2024: 72);

(38) “Ма [мати] за несколько днів до того визвала сестер срочно **на поміч**, даж тьоть Люда з Хабаровська прилетіла. Бо воно ж мазання – це дуже серйозно” (Stolovyi, 2024: 213);

(39) “Там у людей гуртове насіння лежить на посівну. Чи в кого хата згорить, чи ше яка лиха стане – то люди договорились і держуть там **про запас**, щоб було всігда на чорний день” (Stolovyi, 2024: 24);

(40) “Дума Козик, шо це все **просто так** обійдеця, оті наганяї дрином?” (Stolovyi, 2024: 24);

(41) “Баба Катря все клопочеця. Товчеться двором, як електрон по атому, **раз через раз** із-за тина й вигляне, чи не збирається її кохання вже плентати додому?” (Stolovyi, 2024: 115);

(42) “Засовував Дем’ян руку то під одну, то під другу подушку, як Юрко Велиндик руками раків у норах лове, то **так само** почти” (Stolovyi, 2024: 98);

(43) “На грубці стояли полумиски й величезна бабина макітра. Руки простяг до неї, напружуючи пальці, як так баба яга. Не получається. [Дем’ян] **Ще раз** зібрав мислями всю силу в краєчки пальців і з усієї дурі направив її до макітри, щоб вона підчинилася. Витягши руки вперед” (Stolovyi, 2024: 75).

Also, to literary group was conditionally included the colloquial adverbial equivalents of the word (44) *з прищуром* // *with a squint*, (45) *за так* // *approximately for free*, (46) *у натяжку* // *in a stretch*, as well as the colloquial, in our opinion, from the standpoint of modern perception, adverbial equivalent of the word (47) *по пам’яті* // *by memory* (on account of the initial prepositional element *no*, which is now increasingly replaced by *з* (*із*, *зі*):

(44) “Козичка **з прищуром** вдивлялася в темну Яєшнівку, стараючись розгледіти силует чоловіка [...]” (Stolovyi, 2024: 27);

(45) “Та вже другий год і житні нема. Донька колгоспує з ранку до ночі ланковою **за так**, чоловік поїхав із Володькою в Харків строїть заводу” (Stolovyi, 2024: 76);

(46) “Малий фатає рукою **у натяжку** бадилля дерев. Шморг-шморг. Не получаєця” (Stolovyi, 2024: 35);

(47) “Узкоколіійкою з Пархомівки вже давно не їхала “кукушка”, тіки ясенок на одкосі залізниці ще **по пам’яті** повторює рухи, як наче ось-ось зараз той поїзд шмига повз” нього (Stolovyi, 2024: 131).

In the context of the purpose of the article, the units (24) *в дитинстві* // *in childhood* and (25) *в секунду* // *in a second* deserve special attention, because the text simultaneously records the mixed Ukrainian-Russian forms (2) *з дѣтва* ‘з дитинства’ // ‘since childhood’ and (21) *в сікунду* ‘у секунду’ // ‘in a second’. In this aspect, L. Masenko’s observation that “surzhyk can have different forms of expression even at the individual level, the quantitative ratio of elements of two languages in it may depend on the interlocutor and the communicative situation” is appropriate (Masenko, 2019: 90).

3. Conclusions

Therefore, in one text, only within the adverbial equivalents of the word, dialectal or uncodified and literary Ukrainian speech units interact with mixed Ukrainian-Russian speech forms with varying degrees of activity. There are significantly more literary Ukrainian units than mixed Ukrainian-Russian forms (28 vs. 16), albeit at the same time, there are considerably more mixed Ukrainian-Russian forms than distinctly dialectal (16 vs. 3) and even uncodified Ukrainian forms (16 vs. 2).

In mixed Ukrainian-Russian forms, phonetic (2 units – *без слов* ‘без слів’ // ‘without words’, *от радості* ‘від (од) радості’ // ‘from joy’), lexical (5 units – *з вніманієм* ‘з увагою’ // ‘with attention’, *з дѣтва* ‘з дитинства’ // ‘since childhood’, *на спор* // *for a bet*, *од уділення*

‘від (од) здивування’ // ‘from astonishment’, *раді приліччя* ‘(за)ради пристойності’ // ‘for grace’), lexical-phonetic (6 units – *в отвім* ‘у відповідь’ // ‘in response’, *все время* ‘весь час’ // ‘all the time’, *для настроєнія* ‘для настрою’ // ‘for cheer’, *з годами* ‘з роками’ // ‘over the years’, *з приключеніями* ‘з пригодами’ // ‘with adventures’, *по череді* ‘по черзі’ // ‘in turn’), lexical-morphological (2 units – *з жадністю* ‘із жадністю/із жадібністю’, *з осторожністю* ‘з обережністю / з осторогою’ // ‘with caution’), and lexical-phonetic-morphological (1 unit – *на скорості* ‘на швидкості’ // ‘at speed’) interference is traced.

To all appearances, despite mastering the norms of the Ukrainian literary language (which is reflected in the largest number of “literary” adverbial equivalents of the word), the author actively uses mixed Ukrainian-Russian speech forms, mistakenly considering them to be elements of the local dialect.

Such a diverse use of completely distinct types of speech units, using only one link of transitional units of modern Ukrainian, represents the profound detrimental impact that the Ukrainian language has suffered from the policies of the Russian colonial regime. Further study of the Ukrainian-Russian speech practice should be aimed at outlining purist tendencies in the Ukrainian language, at purifying the Ukrainian language from foreign elements, and, accordingly, at establishing the status of Ukrainian as the state language at all levels of its functioning.

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PEDAGOGICAL SUPPORT AS A MECHANISM FOR DEVELOPING ADOLESCENTS' EMOTIONAL STABILITY IN THE EDUCATIONAL ENVIRONMENT

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Summary

The paper examines the formation of adolescents' emotional stability in the contemporary educational environment through the prism of pedagogical support. It emphasizes that emotional stability is a key determinant of effective socialization, psychological well-being, and adaptation of students to changing life circumstances, particularly in the context of social crises and the Russian-Ukrainian war. The study focuses on the role of teachers in creating a safe educational environment that fosters the development of adolescents' self-regulation skills, emotional awareness, and the ability to build constructive relationships with others. The main areas of pedagogical support are identified, including the implementation of art therapy methods, cognitive-behavioral techniques, body-oriented practices, and the engagement of adolescents in social and creative projects. It has been established that these approaches enable adolescents not only to process complex emotional states but also to maintain a sense of inner balance, self-confidence, empathy, and social responsibility. Particular attention is given to the impact of the Russian-Ukrainian war as a psychotraumatic factor that demands increased flexibility, tolerance, empathy, and readiness for psychological support within the educational environment. Under such circumstances, pedagogical support becomes not only a means of education but also an essential mechanism for stabilizing adolescents' emotional state, promoting their personal growth, resilience, and positive self-esteem.

Key words: adolescents, self-regulation, emotions, cognitive-behavioral methods, art therapy, digital technologies.

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1. Introduction

The current socio-cultural situation in Ukraine, complicated by the Russian-Ukrainian war, social instability, and the growing level of anxiety among children and youth, exacerbates the formation of adolescents' emotional stability as a vital component of mental health. Since adolescence is a period of personality development, it involves the intensive formation of the emotional sphere, value system, self-esteem, and social connections. However, the impact of military events leads to emotional destabilization, frustration of personal basic needs, aggressive reactions to stimuli, and impaired social interaction. Therefore, in this context, pedagogical support becomes crucial as a mechanism for helping adolescents restore internal balance, unlock personal resources, and develop emotional self-regulation skills.

The scientific novelty of the study lies in examining pedagogical support as an integrated system for developing emotional stability that combines traditional psychological and pedagogical methods with modern digital tools. Furthermore, the present paper draws on the findings of other scholars. In particular, N. Matsibora made a significant contribution by analyzing

the forms and methods of pedagogical support for developing responsibility in younger students; S. Antoshchuk explored the use of digital technologies in creating a favorable environment for professional development; O. Tarnovetska investigated the formation of adolescents' emotional stability as a key factor in maintaining mental health under conditions of social instability; the work by V. Panok, V. Rybalko, and S. Shandruk contributed to understanding the methodology of psychological follow-up for participants in the educational process amidst the Russian-Ukrainian war; T. Osypova examined pedagogical support as a condition for preparing future teachers for mentoring.

The study aims to provide a theoretical substantiation of pedagogical support as a mechanism for developing adolescents' emotional stability within the educational environment, specifying its conceptual components, psychological and pedagogical conditions, and technological tools for its implementation.

Accordingly, the main objectives of the research are as follows: to define the concept of "pedagogical support" in the context of adolescents' emotional development; to identify the key factors influencing emotional stability under modern conditions; to analyze effective methods and technologies of pedagogical support.

To achieve these objectives, methods of theoretical analysis of scientific literature, comparative and analytical approaches, generalization of empirical data, and modeling of pedagogical conditions for the formation of adolescents' emotional stability were applied.

2. Research results

Pedagogical support is understood as a system of professionally organized actions aimed at creating conditions for a child's self-development and assisting in addressing personal, social, and educational challenges. According to T. Yu. Osypova (*Osypova, 2013: 3*), pedagogical support represents the activity of professional teachers and psychologists focused on identifying, preventing, and providing timely assistance to students in solving personal issues related to physical and mental health, professional and interpersonal communication, academic progress, and life or professional self-determination.

The principle of pedagogical support lies not only in providing assistance but also in creating conditions for the adolescent's development of abilities and know-how, as well as self-regulation, self-knowledge, and self-improvement skills. In this context, the teacher acts as a partner and mentor who facilitates the student's search for inner balance, foster self-confidence, and ensures a sense of emotional security within the educational environment (*Matsibora, 2022: 317*).

In such circumstances, pedagogical support focuses on interaction between the school and the family, where the key functions are informational, educational and developmental, formative, health-improving, controlling, and routine.

The main areas of pedagogical support include:

- psychological first aid – a mandatory competence for every teacher, educator, and school psychologist;
- training sessions for educators on identifying anxiety, destructive behavior, and loss of interest in life;
- various therapeutic practices for the safe processing of traumatic experiences;
- mutual support groups among children, particularly those who are internally displaced or have experienced occupation;

– the presence of a stable, responsive adult (teacher, mentor, father/mother) as a crucial factor in maintaining a child's the emotional balance.

In the process of forming adolescents' emotional stability within the educational environment, the teacher is a key role in mitigating the negative impact of external factors, particularly military events, on students' emotional well-being. The Russian-Ukrainian war is a powerful stressor that activates latent internal conflicts, increases anxiety, and provokes maladaptive behaviors and psychosomatic reactions. As a result, the teacher's task is not only to educate but also to create a safe and stable environment that enables students to restore emotional balance and regain a sense of control over their own life.

One of the most significant consequences of military hostilities is the frustration of adolescents' basic needs for communication, self-realization, and recognition. As A. Maslow emphasized, the satisfaction of higher-level needs becomes possible only after the fulfilment of more basic, lower-level ones. Therefore, pedagogical support should be directed toward fostering a sense of safety, stability, and predictability within the school environment. Teachers promote this by engaging in empathic communication, encouraging teamwork, and organizing collective creative or volunteer projects that help restore students' trust in the world and in themselves.

In addition, the emergence of emotional stress and aggressive reactions is predictable and natural for a child who has experienced the traumatic effects of war. However, not every adolescent is capable of recognizing or adequately processing these emotions. Instead, suppression and non-constructive manifestation of aggression often lead to a certain "freezing" of such feelings as love, tenderness, and sensitivity. As practice shows, this emotional asymmetry considerably worsens relationships between parents and children, as well as between teachers and students, thereby hindering the emotional development of adolescents. Thus, pedagogical support in this context should include methods of emotional release, particularly art therapy, body-oriented practices, and reflective activities that help students to be aware of, accept, and safely work through their emotions (*Panok, 2023: 117-118*).

Accordingly, pedagogical support involves the creation of psychological and pedagogical conditions that promote adolescents' awareness of their own emotions and feelings, as well as the development of skills for their regulation and constructive expression.

In this process, teachers, assistants, educators, and practical psychologists should primarily consider the age-specific characteristics of students, since adolescence is marked by heightened emotional sensitivity to the evaluations of peers and adults, a strong need for recognition and acceptance, and a tendency toward abrupt mood changes, impulsivity, and protest behavior. Therefore, pedagogical support should be based on a strategic and integrated approach, which encompasses a range of psychological and pedagogical technologies aimed at fostering emotional resilience.

An effective component of such support is the application of cognitive-behavioral methods that help adolescents understand the interconnection between thoughts, emotions, and behavior, as well as develop the ability to replace destructive reactions with constructive ones. A significant role is also played by art therapy techniques which facilitate emotional release, self-expression, and the restoration of inner balance. In addition, teachers can employ body-oriented practices and neuropsychological exercises that enable adolescents to become more aware of their better bodily sensations, recognize stress signals, and master techniques for relieving tension.

An essential form of pedagogical support is the implementation of educational projects that allow adolescents to experience success, feel competent, and strengthen their confidence

in their own abilities. By participating in such projects, students develop skills of self-regulation, endurance, and constructive response to challenges. In addition, role-playing activities and collaborative projects that simulate complex life or communicative situations serve as effective tools of pedagogical support. During these sessions, adolescents learn to recognize their emotions, analyze the causes of their reactions, and find alternative behavioral strategies that emotional literacy and social competence. Group training sessions aimed at developing empathy also play a significant role in fostering adolescents' emotional resilience, as they teach how to empathize, accept different opinions, manage aggression, and cultivate tolerance. Thus, through dramatization, analysis of real-life situations and team-based exercises, teachers create a safe space where adolescents can safely explore their emotions and learn mutual respect and support.

A promising area of pedagogical support for adolescents involves the integration of digital technologies in the process of shaping their emotional resilience, as the modern educational environment increasingly incorporates digital tools that diversify learning and provide a deeper, personalized approach to the emotional development of students.

In particular, it is advisable to use platforms for creating discussion forums (such as Moodle, Tovuti LMS, Additio App), virtual boards (Padlet, Miro, IDroo, Twiddla, and others), and video message platforms (Flipgrid) (*Antoshchuk, 2024: 27-28*).

Interactive mobile apps for monitoring emotional state (MindDoc, Spring Health Mobile, Replika, BetterHelp) are becoming an important tool for self-reflection, shaping the skills of self-observation and emotional literacy, thereby helping adolescents to be aware of their feelings, track mood changes, record reactions to stressful events, and analyze their emotional experiences.

An equally important component of pedagogical support involves project-based activities, within which adolescents run their socially significant projects and initiatives, such as media campaigns on TikTok, videos on Instagram, or volunteer initiatives on Facebook or Threads. These activities form a sense of responsibility, agency, and perseverance, and the desire to contribute to the community. Moreover, participation in joint activities strengthens social bonds and enhances self-reflection, enabling adolescents to analyze their experiences, their emotional reactions, and trace positive changes occurring throughout the process.

It is expedient to incorporate courses and techniques that are focused on self-regulation skills, overcoming anxiety, and managing stress. An important component of such courses includes breathing exercises, relaxation practices, meditation sessions, and modules on positive thinking. These activities are particularly beneficial for adolescents due to their convenience, 24/7 accessibility, and engaging gamified format. For instance, the relaxing exercise "I Spy Something Green" combines elements of mindfulness and sensory grounding. During the activity students attentively examine their surroundings, identify green objects, name them aloud, describe their properties, and compare shades and shapes. This process helps to focus attention on the present moment, restore a sense of control over the situation, and reduce tension and internal chaos. If there are few objects indoors, the exercise can be continued outdoors, which also contributes to physical relaxation and contact with the natural environment.

From a pedagogical standpoint, such techniques are particularly important and relevant within the school environment, as they enable adolescents to cope with emotional overload independently, improve concentration, and reduce stress and anxiety. Accordingly, when teachers incorporate these exercises during classes or breaks, they create an atmosphere of psychological comfort and safety for adolescents, which contribute not only to the formation of emotional stability but also to the development of self-help skills and a sense of security, even during air raid alerts.

For adolescents, whose psychological distress often manifests through somatic symptoms, understand the connection between the body and emotions, recognize their body's signals, and restore internal balance.

An effective example of a tool for implementing this technique is VR training, which allows for the stimulation of socially and emotionally significant life situations. Through augmented reality, adolescents can safely "experience" challenging scenarios such as defending personal boundaries, counteracting bullying, adapting to a new team, or overcoming conflicts. A significant advantage of this technique lies in the opportunity for students to experiment with behavioral models within a virtual environment and to observe the consequences of their choices.

To foster adolescents' emotional resilience within the educational environment, it will be advisable to involve a psychologist capable of implementing art therapy methods which combine creative self-expression with a therapeutic effect. Such methods may include drawing, phototherapy, video therapy, and music-based practices which allow adolescents to express their complex emotions, thoughts, experiences in a safe and unobtrusive manner, verbalize internal conflicts, and reinterpret personal experiences. These activities contribute to the formation of a positive self-image, emotional intelligence, increased self-esteem, and awareness of individual resources.

Tarnovetska emphasizes that psychological initiatives in educational institutions play a crucial role in creating an atmosphere of support. The organization of resilience clubs, mental health weeks, training marathons, and interactive quests shapes self-regulation skills and a positive attitude towards psychological assistance as a resource rather than a sign of weakness. Such activities help reduce the prevalence of mental health problems among adolescents and integrate the topic of emotional well-being into the school culture. This is particularly important in the context of the Russian-Ukrainian war, when many adolescents are exposed to constant stress caused by ongoing danger, air raid alarms, shelling, and anxiety for mobilized relatives.

Considerable attention in educational institutions should be devoted to working with families, as the family is the primary environment in which a child's fundamental understanding of self, others, safety, and support is formed. Providing parents with guidance on fostering emotional stability, conducting joint master classes, psychoeducational sessions, and establishing parent clubs or mutual support groups help raise the level of psychological culture of adults and engage them as active participants in the child's development process.

An innovative area of modern psychological practice is the implementation of mindfulness techniques (conscious presence) aimed at reducing stress, developing self-reflection, and stabilizing the emotional state. Therefore, short daily practices, such as body scanning, mindful breathing, and observation of thoughts, contribute to the formation of adolescents' ability to interrupt the flow of anxious thoughts, remain focused on the present moment, and gain a deeper understanding of their emotions.

Accordingly, a comprehensive program for the formation of emotional stability among adolescents in the educational environment includes several interrelated levels of work:

- educational (classes devoted to understanding the nature of stress, self-regulation techniques, and recognizing one's emotions);
- training (group and individual sessions focused on practicing skills);
- project (application of the acquired skills in real-life contexts);
- reflective (analysis of personal experience, discussion of results, and adjustment of the action plan) (*Tarnovetska: 3*).

Studies by O.V. Tarnovetska have shown that in the daily activities of a school psychologist, training sessions based on cognitive-behavioral therapy are highly effective, as they help adolescents learn to recognize negative thoughts, critically evaluate them, and replace them with more constructive and realistic beliefs. During such sessions, students work with worksheets in which they record situations that provoke anxiety, their emotional reactions, and possible alternative ways of thinking. Additionally, exercises are used to create individual “recourse maps” – a list of people, activities, places, or thoughts that help restore emotional balance. An important component of these sessions also involves the development of problem-solving skills: specially designed tasks encourage adolescents to analyze situations from different perspectives, compare possible solutions, and assess risks and consequences, thereby enhancing their self-confidence and forming a sense of internal control.

Another effective area of practical work is the organization of short-term social projects within the community, city, school, which expand adolescents’ experience of positive social interaction, strengthen their sense of self-worth, and develop empathy, compassion, and internal resilience. At the final stage of such projects, the psychologist together with the teacher can organize reflective meetings during which adolescents discuss their experiences, share impressions, reflect on changes in their feelings, and identify new personal resources.

Combining such practical activities with online emotional state questionnaires and mood-tracking applications makes psychological support more flexible, engaging, individualized, and effective. This is especially important under modern conditions, when the development of emotional stability becomes a prerequisite for the harmonious formation of the adolescent’s personality.

3. Conclusions

Pedagogical support serves as a key mechanism for the formation of emotional stability of adolescents in the contemporary educational environment, ensuring a harmonious combination of educational and psychological assistance. It promotes the development of adolescents’ self-regulation skills, stress resistance, emotional awareness, and the ability to respond constructively to difficulties. In the context of the Russian-Ukrainian war, pedagogical support acquires particular significance as a means of preventing emotional disorders, facilitating adaptation to crisis situations, and maintaining mental health.

The study established that the effectiveness of pedagogical support increases with the integration of cognitive-behavioral, art therapy, body-oriented, and digital technologies into the system of educational work. Digital tools, VR training sessions, mobile applications, and online platforms expand opportunities for developing emotional literacy, self-reflection, and inner resilience among adolescents.

Therefore, psychological and pedagogical support should be viewed not only as a form of professional assistance but also as a new culture of interaction with children and adolescents in which every adult is emotionally literate, attentive, and trustworthy.

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INNOVATION, WORK, SOCIETY

COMPETENCE OF SPECIALIZED ADMINISTRATIVE COURTS IN UKRAINE

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The purpose of the paper is a comprehensive research of the institutional, legal and methodological principles of the functioning of higher specialized administrative courts in Ukraine in the context of judicial reform and European integration processes. The feasibility of creating such courts has been substantiated, which is due to both the internal needs for improving the judicial system and the international obligations of the state in accordance with the Ukraine Facility plan. It has been proved that higher specialized administrative courts are an important element in ensuring the rule of law, protecting human rights and forming the unity of judicial practice. The feasibility of transferring part of the atypical powers of the Supreme Court to specialized administrative courts has been indicated in order to optimize the workload and increase the efficiency of considering public – law disputes. Special attention has been paid to judicial discretion as a mechanism for flexible application of law and unification of judicial practice. The role of the ratio decidendi principle in forming precedents and ensuring the predictability of legal decisions has been highlighted. The research has used systemic, institutional, analytical and logical methods: the systemic approach has allowed to determine the place of specialized courts in the general structure of the judicial system, the institutional approach – to identify the differences between the previous and new models of the organization of administrative justice, the analytical approach – to investigate legislative initiatives and issues of competence delimitation, the logical approach – ensured the consistency of argumentation and conclusions. The prospects for further research are in the comparative analysis of the effectiveness of the activities of specialized administrative courts according to the continental and anglo-american models, the assessment of the impact of judicial discretion on the stability of law enforcement, the research of the risks of corruption and the search for mechanisms to minimize them, as well as in the study of the interaction of specialized courts with other judicial authorities.

Key words: judicial reform, justice, administrative jurisdiction, prospective legal precedent, judicial discretion.

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1. Introduction

Reforming the system of administrative justice in Ukraine is one of the key directions of modernization of the national judiciary and an important element of fulfilling the international obligations of the state within the framework of the European integration course. In particular, the institutionalization of higher specialized administrative courts in Ukraine is an urgent challenge that meets the European integration aspirations of Ukraine, since after the liquidation of the Supreme Administrative Court of Ukraine and the District Administrative Court of Kyiv, there was an objective need to create new institutions capable of ensuring the effective functioning of administrative justice and the proper implementation of the principles of the rule of law. That is why the formation of the Specialized District Administrative Court and the Specialized Appeal Administrative Court became a logical continuation of the judicial reform aimed at increasing trust in the judicial system, strengthening institutional independence and reducing the burden on the Supreme Court.

The relevance of the research topic is due to the need for effective institutional renewal of the administrative justice system, capable of ensuring the protection of human rights and freedoms in public law disputes. The foreign doctrine emphasizes the original idea of a tort – oriented approach, according to which the occurrence of damage in a specific place depends on the condition that the relevant right is subject to protection in the territory of this state (*Gonçalves, 2022: 129*). Predictability is ensured mainly by fundamental legal principles (know how to act / decide), and it is also important for the institution of responsibility (*Pečarič, 2021: 86*), particularly in the context of the lack of epistemological foundations necessary for law enforcement (*Prince Tritto et al., 2025: 183*).

In the context of long-term political and legal transformations and harmonization of Ukrainian legislation with European standards, it is important to understand the role of specialized administrative courts in the judicial system of Ukraine, to determine their legal status, competence boundaries and mechanisms for implementing procedural guarantees. The novelty of the research lies in the comprehensive analysis of specialized administrative courts as a separate link in the judicial system, taking into account the latest legislative initiatives, international obligations and modern trends in the development of judicial discretion.

It is also important to consider the technological aspect of the outlined judicial reform, regarding the two dimensions of regulatory interest in the context of technology regulation and regulation by technology itself (*Brownsword, 2025: 41*). In particular, legal technologies based on artificial intelligence have enormous potential to structurally change all aspects of law (*Soukupová, 2021: 280*). At the same time, algorithmic and automated decision-making means less freedom, and without freedom of action, people do not develop ethical principles as part of their personality (*Razmetaeva et al. al., 2022: 248*).

The purpose of the research is to reveal the legal, organizational and methodological foundations of the functioning of higher specialized administrative courts in Ukraine, to determine their role in ensuring the rule of law, the unity of judicial practice and the implementation of the principles of judicial independence.

To achieve the goal, the following tasks need to be solved:

- analyse legislative initiatives considering the creation and legal status of higher specialized administrative courts, as well as the features of their institutional autonomy;
- to determine the competence of higher specialized administrative courts, in particular to identify problems of the division of powers between higher specialized administrative courts and other judicial authorities in Ukraine;

– to investigate the content and practical significance of judicial discretion in the context of the functioning of newly created courts.

The research methodology is based on a combination of systemic, institutional, analytical and logical methods. The systemic approach has allowed to consider specialized administrative courts as part of the general judicial system; institutional – to compare the old and new institutional models, to show the relationship between judicial reform, legislative changes and international obligations of Ukraine; analytical – to identify trends in legal regulation and issues of law enforcement; logical – to consistently build an argument from a general description of the judicial system to specific problems of competence higher specialized administrative courts.

2. Institutionalization of specialized administrative courts in Ukraine

After the liquidation of the Supreme Administrative Court of Ukraine and the District Administrative Court of Kyiv, the issue of the optimal distribution of competence between the new and existing courts arose. Judicial authorities, such as the Supreme Court, the Kyiv District Administrative Court, the Kyiv City District Administrative Court (which has not been considering cases yet), as well as the newly created Specialized District and Specialized Appeal Administrative Courts. The following stages of the creation of higher specialized administrative courts in Ukraine could be distinguished depending on the content of legislative initiatives:

1) institutionalization of a single higher specialized administrative court (with established qualification requirements for a judge of a specialized court under the legislation of Ukraine, as well as the opportunity to participate in the competition for persons with at least seven years of professional experience in the field of law in civil service positions in state authorities whose powers extend to the entire territory of Ukraine) – the Higher Court for Public – Legal Disputes (in accordance with draft law No. 12206 of 14.11.2024); the Higher Specialized Administrative Court (based on government draft law No. 12206-1 of 22.11.2024); the Higher Administrative Court (in accordance with draft law No. 12206-2 of 28.11.2024); the Specialized Administrative Court (based on government bill No. 12368 of 12/30/2024);

2) the creation of two different higher specialized administrative courts with the jurisdiction of courts of first and appellate instance (according to alternative draft law No. 12368-1 of 07.01.2025, supported by the Verkhovna Rada of Ukraine, which in its original wording concerned the creation and functioning of the Kyiv City District Administrative Court and the Kyiv City Appeal Administrative Court as specialized administrative courts).

The analysis of the aforementioned legislative initiatives indicates the special status of the higher specialized administrative courts in Ukraine. Judges are elected through a public competition, and their powers and grounds for termination are clearly defined by law. The state guarantees the safety and security of judges, as well as adequate social security, which supports the stability and efficiency of the judicial system. However, the final name, which combines the terms “Specialized District” and “Specialized Appellate”, is controversial, as it does not fully separate the legal status of these courts from ordinary district and appellate administrative courts. In addition, given the strict qualification requirements for judges of specialized administrative courts, attention should be paid to the potential corruption risk associated with the consideration of cases by those judges who, before the competition, held positions in state bodies that act as defendants in cases transferred to the relevant courts.

It is worth clarifying that the establishment of higher specialized administrative courts in Ukraine was one of the requirements put forward by the International Monetary Fund and the European Commission. This condition was officially enshrined in the Ukraine Facility plan,

which defines the key areas of reforming the judicial system of Ukraine. Researchers in the field of administrative process recognize that the highest specialized courts of Ukraine are a key element in the structure of the judicial system and the administration of justice, ensuring the protection of human rights and fundamental freedoms. These courts function as instances for considering certain categories of cases, and their activities are regulated by a separate regulatory act that determines the legal status of courts and their place in the general judicial system of Ukraine (*Chumak, 2020: 255–256*). The high status of these courts is confirmed by the guarantees of their activities regarding legal status, organizational autonomy, as well as the procedural dimension of functioning (*Antipova, 2021: 7–8*). Thus, the organizational autonomy of higher specialized courts is guaranteed by the independence of territorial location, a separate organizational structure, and a special procedure for financing and managing funds. Procedural guarantees They define clear forms and procedures for considering cases, prohibit the delegation of judicial powers, ensure equality of participants in the process, monitor compliance with behavioural norms, and provide for the functioning of appeal chambers to review decisions.

Thus, we could draw an interim conclusion that the higher specialized courts in Ukraine are integrated into the continental legal system that meets international standards, similar to judicial institutions in many countries in Europe, Asia, Africa and America. This approach contributes to the proper implementation of judicial control, the protection of human rights and freedoms and ensuring the stability of public law even in periods of transformation or in crisis circumstances. The higher specialized administrative courts in Ukraine play a key role in the system of justice, ensuring the protection of human rights and freedoms from arbitrariness on the part of the subjects of power, given the independence and inviolability of the judges of these courts, their immunity and opportunities for professional development and advanced training.

3. Competence risks in the activities of specialized administrative courts in Ukraine

As for the Kyiv City District Administrative Court, after the liquidation of the Kyiv City District Administrative Court, no changes were made to the Article 27 of the Code of Administrative Proceedings of Ukraine, therefore its exclusive jurisdiction remains. After the formation of specialized administrative courts, the Kyiv City District Administrative Court will consider cases on appeals against decisions of the Antimonopoly Committee of Ukraine in the field of public procurement (except for cases on the claim of the Antimonopoly Committee of Ukraine in the field of state aid to business entities), administrative cases involving diplomatic missions and consular institutions, as well as other cases in accordance with the general rules of jurisdiction.

A considered step by the legislator is the transfer to the newly established specialized administrative courts the powers of the Sixth Administrative Court of Appeal as a court of first instance considering the financing of the statutory activities of political parties, although with the preservation of the competence of this court to resolve disputes in view of decisions and actions of the Central Election Commission, candidates for the post of President of Ukraine and their proxies, issues of banning political parties, as well as appealing decisions of the National Agency for the Prevention of Corruption regarding state funding of parties.

After the liquidation of the Supreme Administrative Court and the creation of the Supreme Court, the powers of the Cassation Administrative Court within the Supreme Court were expanded and include both cassation review of decisions of local and appellate administrative courts, and the resolution of cases of both the court of first and appellate instance considering the results of elections or referendums, early termination of the powers of people's

deputies, appealing against actions or inaction of government bodies, in particular the Verkhovna Rada, the President, the Accounting Chamber, the High Council of Justice and other responsible bodies, as well as appealing against decisions and actions related to the appointment of judges of the Constitutional Court of Ukraine. Special attention should be paid to the atypicality of such an approach, when the court of cassation simultaneously has the powers of a court of first instance. However, such practice will remain even after the creation of higher specialized administrative courts in Ukraine.

Thus, given the inconsistency in the distribution of competence between administrative courts in Ukraine, it is necessary to harmonize their jurisdiction and subject jurisdiction by reducing the burden on the Supreme Court by transferring the authority to hear cases as a court of first and appellate instance to the Specialized District and Specialized Appeal Administrative Courts. These courts should also include to transfer and resolve cases in the appellate district, which includes the city of Kyiv, as well as sanction disputes, in particular those currently being considered by the Supreme Anti-Corruption Court in accordance with the rules of administrative justice.

4. The Precedent Dimension of Judicial Discretion

The concept of discretionary conditionality of law emphasizes the choice between several potentially applicable legal norms, determining which of them in specific conditions most fully ensures justice and legal certainty. The active – volitional interpretation of judicial discretion is most widespread in American legal doctrine, but is gradually gaining importance in the Romano – Germanic continental system as a result of rapprochement with Anglo – American case law. This approach is based on a pragmatic concept that considers the application of law as a choice from a limited number of permissible lawful options for behaviour. Judicial discretion in this context, the court has a limited competence to choose the most appropriate, legal and fair way to resolve a specific case, given its factual circumstances. This is a legally enshrined discretion of the court, which is exercised within the framework of established procedural norms, to ensure the principles of justice, the rule of law and the effective restoration of the violated rights of the parties to the administrative process.

Regarding the functioning of higher specialized administrative courts in Ukraine Firstly, it is necessary to differentiate the following two types of powers: 1) procedural discretion of the administrative court, associated with the consideration and resolution of an administrative case by the court; 2) non-procedural (extrajudicial) discretion of the administrative court during participation in administrative – legal relations (*Panova, 2017: 50*). Such a possibility of the administrative court, which considers and resolves the case, regulated by the norms of administrative procedural law and based on the norms of substantive law and factual circumstances, is associated with the adoption of a procedural decision at its own discretion (*Bevzenko et al., 2018: 71*). At the same time, it is important to take into account the approaches of the sociological school of law and legal realism, which deny the absolute predictability of a judicial decision. According to this direction, judicial discretion is not only a tool for interpreting the law, but also a reflection of the personal experience, psychological characteristics and internal motives of the judge, which directly affect the formation of “living law”. Hence, a judicial decision is considered as the result of individual reflection, assessment of circumstances and volitional choice aimed at preventing negative consequences.

The basic principle of “ratio decidendi”, which underlies the resolution of cases, is not subject to strict algorithmization, since it is oriented not only to logical reasoning, but also to

the judge's intuitive perception of legal norms "through the eyes of the predecessor", that is, the one who made a decision that became a precedent and is subject to application in similar cases. A prospective judicial precedent arises only by means of a court decision, when a general principle of application of law is inferred from a particular case by induction. However, difficulties might arise in determining the discretionary limits of such a precedent, the possibility of its non-application or annulment, as well as in establishing criteria for the similarity of cases and choosing from among the multitude of relevant precedents.

As a rule, legally interpretative judicial precedents contain rules for understanding legal norms. As a result, established and unified judicial practice is formed, judicial customs, in particular, within the framework of the exercise of judicial discretion, the clarification of regulatory acts and judicial practice by higher judicial authorities, and acts terminating rights might be adopted. (*Stepanenko, 2019: 27*). Undoubtedly, the norms of law are the main reference point for judges of specialized administrative courts. in Ukraine in the process of law enforcement. However, in situations where these norms turn out to be uncertain, ambiguous or contain conflicts, the judge is forced to go beyond the literal meaning of the law and turn to the basic principles of the legal system. In the process of interpretation, a mechanism is formed for extending the meaning of the norm to specific factual circumstances of the case. The result of such interpretation is a new understanding of the law, reflected in the motivational part of the court decision as a conclusion, which becomes the basis for making a final decision in the case. Such a process has a dynamic and discursive nature, since it takes into account the specifics of a specific situation, as well as historical, sociocultural, economic and other factors of legal reality.

Therefore, the most flexible and liberal model of judicial practice for higher specialized administrative courts in Ukraine might be the Anglo-Saxon precedent, built on the doctrine of "stare decisis" considering the broad scope of judicial powers in lawmaking, with the possibility of granting judicial decisions retroactive effect in time. At the same time, in the common law system, to which the legal system of Ukraine belongs, it is also necessary to apply tools for overcoming precedent, in particular, the method of distinction, which allows the judge to recognize the precedent as unsuitable for application in a specific case under consideration.

Methodological approach to applying the relevant court decision in a similar case covers the analysis of a homogeneous space of possible options for judicial discretion, which allows forming a mechanism for a gradual transition to a new decision by modifying the previous approach. Such a heuristic approach functions as an algorithm that ensures the selection of the optimal solution within a reasonable time by means of a sequential, logical review of all potential alternatives. The evaluation process could be started from any element of the system, with subsequent movement through intermediate stages in a certain direction, until each of the possible options meets the established global criteria of efficiency and feasibility. At the same time, it should be taken into account that achieving a local optimal result might make it impossible to find globally the best solution, since the choice of one path often narrows the space of further alternatives. Prejudicial legal categories should be applied taking into account the unique factual circumstances of a particular case, which excludes the possibility of their universal assessment or use in all contexts without exception.

5. Conclusions

Consequently, the higher specialized administrative courts in Ukraine are a key tool for the modernization of the judicial system and the implementation of the state's European integration aspirations. Their creation after the liquidation of the Higher Administrative Court of Ukraine

and the District Administrative Court of Kyiv allowed to optimize the distribution of competence between the Supreme Court, Kyiv District and Kyiv City District Administrative Courts, as well as the newly created Specialized District and Specialized Appeal Administrative Courts. These courts have legislatively defined powers and guarantees: competitive appointment of judges, independence and immunity, protection and social security, as well as opportunities for professional development, which ensures the stability and efficiency of administrative justice.

Transferring the atypical powers of the Supreme Court for the cassation level to the competence of specialized administrative courts allows reducing its workload and increasing the efficiency of considering cases regarding election results, activities of government bodies, state financing of political parties and other public – law disputes. Preservation of the exclusive jurisdiction of the Kyiv City District Administrative Court will ensure legal certainty in specific categories of cases.

An important aspect of the functioning of higher specialized administrative courts in Ukraine is judicial discretion, which allows choosing the most fair option for applying the law taking into account the factual circumstances. The use of the principle of “ratio decidendi” and precedents contributes to the unification of judicial practice, while ensuring an individual approach of judges and taking into account the peculiarities of each case under consideration. The methodology of relevant interpretation of decisions indicates the expediency of applying a heuristic approach, which allows gradually modifying judicial precedents and achieving optimal legal results.

Prospects for further research include an analysis of the effectiveness of the activities of specialized administrative courts in comparison with the continental and Anglo-Saxon models, the application of case law in the administrative justice of Ukraine, an assessment of the impact of the discretionary component on the stability of judicial practice, as well as a research of potential corruption risks and ways to minimize them. It is also advisable to study the mechanisms of interaction of higher specialized administrative courts with other bodies of judicial and non-judicial power.

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DIGITALISATION OF PUBLIC PROCUREMENT AS A TOOL FOR ENSURING TRANSPARENCY AND COMBATING CORRUPTION IN UKRAINE

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Summary

The article provides a comprehensive study of the process of digitisation of public procurement and state registers in the context of modernising the public administration system. The author aimed to analyse the historical stages of the development of digital tools, determine their impact on reducing corruption risks and increasing transparency, and assess the prospects for their further development in Ukraine and worldwide.

The paper traces how the emergence of electronic platforms in developed countries and their gradual introduction in Central and Eastern Europe created the preconditions for systemic reforms. Particular attention is paid to the Ukrainian experience, where the key result was the creation of the Prozorro system, which combined the principles of open data, multi-level interaction and competition among participants.

The architecture and mechanisms of electronic platforms, in particular Prozorro, which ensure standardisation of procedures, open access to data and the possibility of public control, are examined. It is shown that such innovations have become not only technical tools, but also elements of institutional reform aimed at increasing the legitimacy of public policy.

The role of electronic state registers as instruments of transparency and accountability was studied. It was found that they create a single information space, enable independent monitoring of the activities of public authorities, contribute to the fight against fictitious entrepreneurship and corruption schemes, and strengthen Ukraine's integration into the European legal field.

The study confirmed that digitalisation can significantly reduce abuse through the automation of procedures, the algorithmisation of decision-making, and the formation of a new culture of transparency. The importance of digital tools for the development of public control and the strengthening of public trust in institutions was emphasised separately.

At the same time, the article identifies a number of problems and limitations, including uneven infrastructure development, low digital literacy, cyber threats, and legal gaps. On this basis, prospects for further research related to the use of artificial intelligence and blockchain in public administration and the expansion of international cooperation in the field of digitalisation are identified.

Key words: digitalisation, public procurement, Prozorro, electronic state registers, process automation, anti-corruption policy, transparency, public control, cybersecurity, public policy, fight against corruption.

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1. Introduction

The relevance of the issue stems from the fact that public procurement traditionally remains one of the most vulnerable areas of public administration, where high levels of corruption risks and bureaucratic procedures hinder the effective allocation of resources.

In the context of military challenges and growing public demand for transparency in government decisions, digitalisation is becoming an essential tool for ensuring openness and accountability of the authorities. The introduction of electronic systems such as Prozorro demonstrates the ability of technology to minimise abuse and shape new standards of interaction between the state, business and civil society.

At the same time, digitalisation requires systematic analysis, as its effectiveness depends on the combination of technological solutions with political will, an appropriate regulatory framework and the level of digital literacy of users. Cybersecurity issues, technical failures, and uneven access to digital platforms create additional challenges that can negate the results achieved. That is why research into the impact of digital tools on reducing corruption risks and increasing trust in the state is particularly important for the further modernisation of the public administration system.

2. History of the implementation of digital tools in public procurement

The history of the introduction of digital tools in public procurement is inextricably linked to the evolution of management practices and the democratisation of public administration. In the second half of the 20th century, most countries around the world used traditional paper-based procedures, which were characterised by a high level of bureaucracy and corruption risks. Attempts at automation began with local experiments in electronic document management, but the real breakthrough came only with the spread of the internet in the 1990s.

The first initiatives for electronic tendering systems appeared in economically developed countries, particularly in the United States and the United Kingdom. They allowed authorities to publish procurement notices in electronic form and ensured equal access to information for suppliers. This was the first step towards transparency, as the openness of tender procedures reduced the risk of collusion and informal agreements (*Doherty, 2013*).

In the European Union, the digitisation of public procurement became systematic after the adoption of the 2004 directives, which obliged member states to switch to electronic formats for interaction between the state and business. This contributed to the development of national electronic platforms, which ensured the unification of rules and created the conditions for a single procurement market within the Union.

In Central and Eastern European countries, digital tools were introduced as part of broader public administration modernisation programmes. Their implementation was particularly important in the context of integration into European structures. In Poland and the Czech Republic, electronic systems began operating in the 2000s, gradually covering the entire procurement cycle from announcement to contract conclusion.

In Ukraine, the first steps in this direction were taken in the early 2000s, but the process was hampered by a lack of political will and institutional capacity. It was only after 2014, in the context of a deep crisis of governance and public demand for transparency, that systemic changes were initiated. A key result of these reforms was the creation of the Prozorro electronic system, which has become a symbol of anti-corruption progress.

Prozorro, as an innovative platform, combined the principles of open data and multi-level interaction between the state, business and civil society. The use of digital tools not only reduced corruption risks but also optimised state spending, as competition among suppliers led to lower prices. An additional benefit was the formation of a new culture of transparency in public finance management (*About, 2025*).

The system gradually expanded its functionality, covering new types of procurement and integrating with international practices. Ukraine has gained recognition from international partners, including the World Bank and the European Bank for Reconstruction and Development, which have highlighted Prozorro as one of the most successful reforms in public administration.

Digital tools in the field of procurement have not only an anti-corruption dimension, but also an innovative one. They stimulate the development of the IT sector, create conditions for the emergence of new business models, and ensure a more efficient allocation of resources. At the same time, the introduction of digital platforms contributes to increasing trust in the state and forming a positive international image.

However, the history of the digitalisation of procurement shows that there are numerous challenges. These include technical failures, low levels of digital literacy among users, and attempts to adapt corrupt practices to new conditions. This proves that digital tools are not a panacea, but require constant improvement, staff training and monitoring.

Today, it can be said that the digitalisation of public procurement has become a global trend that sets the standards for good governance. Its history shows that the combination of technology with political will and institutional support can change the rules of the game in relations between the state and business. Ukraine's experience in this context is a telling example that is being integrated into the broader European and global process.

The prospects for development lie in further automation, the use of artificial intelligence and blockchain technologies to control transactions, and the expansion of international cooperation. These trends prove that the history of the introduction of digital tools in public procurement is only the beginning of deeper transformations in public administration.

3. Main electronic procurement platforms (for example, Prozorro): principles, mechanisms, architecture

Electronic procurement platforms have become a key tool for ensuring transparency and efficiency in the use of public resources. Their emergence is driven by the need for open and competitive procedures that minimise the human factor and reduce corruption risks. The functioning of such systems is based on the idea of equal access to information for suppliers and the creation of a competitive environment where the winner is the one who offers the best conditions.

One of the most well-known and successful platforms in Ukraine is Prozorro. It is built on the principle of complete data openness, which means that all information about procurement procedures is accessible to the public, businesses and regulatory authorities. Openness ensures public control and creates new opportunities for analytics, research and monitoring of the effectiveness of public spending. This principle is in line with the international Open Contracting Partnership initiative, which sets global standards for transparency.

Prozorro's mechanisms are based on a multi-level structure of interaction between the state, business and civil society. The central link is an electronic system that acts as the core of the process. It is integrated with several commercial electronic platforms that provide users with access to tenders. This architecture ensures competition not only among suppliers but also among platforms, which improves the quality of services and the level of user support.

The procurement process on the platform consists of several stages, each of which is automated and standardised as much as possible. First, the customer publishes a procurement announcement, which becomes available to all registered participants. Next, tender proposals are submitted and stored in the system in encrypted form. At the auction stage, the system opens

the bids and automatically organises a bidding process, where participants can lower their price offers in several rounds. After the auction is completed, the system determines the winner based on objective criteria (*Poburko, 2024*).

Prozorro's architecture is hybrid and based on a hub and spoke model, where the central database acts as the core and private platforms are like spokes that provide access to the system. This approach makes it possible to avoid monopolisation, distribute the load and create a flexible ecosystem where the state acts as a regulator and businesses provide user services. The technical implementation involves the use of open APIs, which simplifies integration with other information systems.

The Prozorro analytics module plays a special role in the platform's operation. It enables comprehensive analysis of tenders, detection of suspicious schemes, monitoring of cost efficiency, and even forecasting of trends in the procurement sector. Such tools strengthen the system's anti-corruption potential and contribute to greater public trust.

An important feature is Prozorro's integration with international practices. The system complies with European Union directives, making it compatible with the European market and opening up opportunities for foreign suppliers. This not only promotes competition but also stimulates higher standards of quality for products and services purchased by the state.

In addition to Prozorro, Ukraine has auxiliary digital tools such as Prozorro.Sales, which are used to sell state and municipal property, as well as commercial assets. Their architecture is based on the same principles of openness and competition, which ensures the comprehensive use of digital technologies in the management of public resources.

Thus, electronic procurement platforms have become not only a technical tool but also an institutional reform that has radically changed the relationship between the state and business. The principles of openness, equal access and competition, combined with innovative architecture, create the foundation for a new model of good governance. Ukraine's experience shows that such systems can bring about real improvements in the effectiveness and legitimacy of public policy.

4. Role of electronic state registries in ensuring transparency

Electronic state registers have become one of the key elements in the formation of a transparent public administration system. They provide centralised storage and access to official information that was previously scattered among various institutions or existed only in paper form. Digital technologies have made it possible to obtain data quickly, minimising bureaucratic barriers and reducing opportunities for corruption.

One of the most important functions of electronic registries is to ensure equal access to information for all interested parties. Open data allows citizens, businesses, and journalists to independently monitor the activities of government agencies. This contributes to increased public trust, as citizens are able to verify the accuracy of official decisions and monitor the actions of state bodies (*Bula, 2025*).

The transparency provided by electronic registries is evident in the ability to quickly track transactions related to property, finance, or economic activity. For example, the register of legal entities and individual entrepreneurs allows the identification of company owners and the detection of fictitious business schemes. This creates additional tools to combat money laundering and illegal financial transactions.

Electronic registers are particularly important in the field of public procurement. Integrating these databases with electronic tender platforms makes it possible to check the reliability

of suppliers, their tax history and whether they have any court cases. This not only increases competition, but also minimises the participation of companies with questionable reputations.

An important area of development is the interconnection of electronic registers. Interoperability mechanisms create a single information space in which data is automatically synchronised between different government systems. This reduces the time needed to verify information, eliminates duplication and reduces the risk of errors or manipulation (*System of electronic interaction of state electronic information resources | SE DIIA, 2025*).

Electronic registers have a significant impact on anti-corruption policy. Open registers of civil servants' declarations, registers of court decisions and property databases enable the public sector and the media to exercise independent control. It is thanks to digital tools that it becomes possible to identify conflicts of interest, illegal enrichment and concealment of assets.

The integration of electronic registries into the European and international legal space opens up new opportunities for international cooperation. The exchange of data between states makes it impossible to flee capital and hide assets abroad. This is particularly relevant for Ukraine, which is in the process of adapting its legislation to European Union standards.

The development of electronic registries is also important for economic progress. Open information about the business climate, state resources and infrastructure creates the conditions for attracting investment. Potential investors are able to quickly check the reliability of partners and predict risks, which makes the economic environment more predictable.

At the same time, the use of electronic registers is associated with certain challenges. The most significant of these are personal data protection and cybersecurity. Openness should not threaten citizens' privacy, so the state must ensure a balance between transparency and security.

Thus, electronic state registers are not only a technical but also a political tool. They shape a new quality of relations between the state and society, lay the foundations for government accountability, and create conditions for strengthening the rule of law. Their role in ensuring transparency lies in transforming public administration towards greater openness, accountability, and trust.

5. Prevention of corruption risks through process automation

The automation of government processes has become one of the most effective tools for countering corruption risks in modern political systems. The use of digital technologies in public administration minimises the human factor, which is the main source of abuse. When decision-making and data verification are carried out by algorithms, the opportunities for manual intervention are significantly reduced, which increases the transparency and predictability of management procedures.

One of the key mechanisms for preventing corruption through automation is the unification of procedures. Automated systems operate according to clearly defined rules that do not depend on the personal decisions of officials. This avoids situations where identical applications or documents receive different results due to subjective interpretation. This approach ensures a level playing field for all participants in the process.

Automation is particularly important in the field of public procurement. The use of electronic systems, in particular Prozorro in Ukraine, has made it possible to drastically reduce corrupt practices thanks to transparent auction algorithms and open access to all information. The public nature of the data makes it impossible to conceal inflated prices or collusion between participants, and automated procedures reduce the scope for manipulation in favour of individual suppliers.

Process automation also plays an important role in monitoring compliance with financial discipline. Electronic accounting and reporting systems allow real-time tracking of budget funds. This ensures not only transparency but also rapid response to suspicious transactions. Thus, control becomes not only *ex post facto* but also preventive in nature.

Digital algorithms play a significant role in the provision of administrative services. The transition to electronic services, such as business registration or the issuance of permits, eliminates direct contact between citizens and officials. Reducing the number of such contacts directly reduces opportunities for bribery and abuse of power (*Novosad, 2025*).

A significant advantage of automation is the creation of uniform digital traces. Every action in the system leaves a record that can be verified and analysed. This creates a new model of accountability in which any unlawful interference or delay immediately becomes apparent. This approach not only reduces the number of corruption cases, but also increases the effectiveness of disciplinary and criminal liability.

At the same time, process automation requires an adequate level of cybersecurity. If the system is not adequately protected, it may become vulnerable to external interference, creating risks of manipulation of a different nature. It is therefore important that, alongside the development of digital services, the state pays attention to data protection, encryption and regular security audits (*Cybersecurity strategy of Ukraine | Digital Watch Observatory, 2021*).

Automation is also a powerful tool in the field of personnel policy. Competitive electronic recruitment systems minimise the risk of political or corrupt influence on appointments. Objective criteria and standardised selection algorithms ensure equal access for citizens to public service and increase trust in institutions.

The automation of processes in public administration is not only a technological solution but also a political tool for building integrity and accountability. It changes the culture of interaction between the state and citizens, forming a new model of governance in which corruption risks are systematically minimised. Automation is becoming part of broader reforms aimed at establishing the rule of law and strengthening democratic foundations.

6. Analysis of the impact of digitalization on reducing abuses

Digitalisation in public administration is seen by modern science as one of the key tools for reducing corruption and abuse of power. Its impact lies not only in the technical automation of processes, but also in changing the institutional logic of how the state works. The transition from closed and fragmented procedures to open and integrated digital systems creates new standards of transparency that significantly limit opportunities for covert manipulation.

One of the most important consequences of digitalisation is ensuring open access to data. When information about government decisions, procurement or property becomes available in public electronic registers, the possibility of selective access or concealment of facts disappears. Openness reduces the asymmetry of information between the authorities and society, which is a classic prerequisite for corruption schemes (*Bula, 2025*).

Digital tools minimise the human factor's influence on administrative procedures. Algorithmic decision-making ensures uniform rules for all participants in the process, reducing the scope for subjective interpretation of the rules. For example, in the Prozorro system, the procedure for determining the winner takes place automatically according to predefined criteria, which makes it impossible for officials to intervene at the decisive stage.

Digitalisation strengthens control mechanisms. All actions performed in electronic systems leave a digital trail that can be tracked and analysed. This creates a new level of

accountability, where even minor deviations or delays become the subject of attention from regulatory authorities and the public. Thus, the system not only responds to abuse, but also has a preventive effect, as officials understand the inevitability of exposure.

An important result of digitalisation is the expansion of opportunities for public control. Civil society organisations, journalists and expert analytical centres gain access to open data sets that can be analysed using modern information processing technologies. This strengthens the role of society as a participant in the control process and shapes a new political culture of accountability (Troitskiy, 2025).

The impact of digitalisation on reducing abuse can also be seen in the provision of administrative services. The transition to electronic services reduces the number of direct contacts between citizens and officials, which lowers the risk of bribery. At the same time, the standardisation and unification of procedures in digital form makes it impossible to make individual 'arrangements' to speed up or simplify services.

However, digitalisation is not an absolute guarantee of eliminating corruption. Abuse can transform into new forms related to the manipulation of technical parameters of systems or control over access to data. This requires constant improvement of digital platforms, independent auditing of their work and the development of cybersecurity.

In Ukraine, digitalisation has already yielded tangible results. The Prozorro, e-Data, Unified Register of Declarations, and Diya mobile app systems have become symbols of a new model of openness. They have not only reduced the number of abuses in specific areas, but also changed public expectations, creating a demand for transparency as a new standard of interaction between the state and citizens.

7. Problems and limitations of implementing digital solutions in procurement and registries

The implementation of digital solutions in the field of procurement and public registries, despite its obvious advantages, is accompanied by a number of problems and limitations that require systematic analysis. One of the key challenges is the uneven technical development of digital infrastructure. Not all regions and state bodies have the same level of access to modern technologies, which leads to asymmetry in the use of electronic services and reduces their effectiveness.

A significant limitation is the level of digital literacy among users. Officials, business representatives and citizens often encounter difficulties when working with electronic systems. This can lead to errors in the use of tools, incorrect completion of documents, or unwillingness to participate in digital procedures, which limits real openness and competition (Ukraine accelerates e-literacy through public infrastructure, 2025).

Cybersecurity is an important issue. The growth in the volume of data processed on digital platforms makes them an attractive target for hacker attacks. Unauthorised access to state registers or electronic procurement can lead to large-scale financial and political consequences. Inadequate information security undermines trust in digital tools.

Another challenge is the technical reliability of systems. Electronic platforms sometimes experience failures that disrupt tender procedures or complicate user access to registries. Such situations create risks of manipulation and discredit the reforms themselves, as users begin to doubt their effectiveness.

No less significant is the risk of digital bureaucracy. Although electronic systems are designed to reduce paper-based procedures, they sometimes duplicate old practices in digital

form. This leads to formal rather than substantive process improvements and does not address the root causes of corruption risks.

The issue of data accessibility remains a challenge. Despite the proclaimed principle of open registries, some categories of information remain closed or only partially accessible. This situation creates selectivity in transparency, which can be used in the interests of individual groups.

The complexity of integrating different registries and systems is also a limitation. The lack of full interoperability leads to duplication of information, discrepancies in data, and additional time spent on verification. This reduces the effectiveness of digital tools and creates room for manipulation.

A social factor limiting digitalisation is the distrust of electronic platforms among part of the population and business community. This is due to both general scepticism about state institutions and actual cases of data breaches or leaks. Overcoming this distrust requires not only technical improvements to systems, but also a consistent information policy.

The issue of legal support is of particular importance. The legislative framework does not always keep pace with technological innovations, which leads to legal loopholes. The uncertainty of the status of electronic documents or vague rules on data storage can create grounds for appeals and manipulation in court proceedings (*Kapitanenko, 2024*).

The risk of corruption practices adapting to new conditions must also be taken into account. Even the most modern systems do not guarantee the complete elimination of abuse, as unscrupulous participants can find new ways to use digital tools to their advantage. This points to the need to combine technological solutions with institutional reforms and the development of public service ethics.

8. Conclusions

The digitisation of public procurement and state registries has proven effective in minimising corruption risks, increasing transparency and creating a competitive environment. The introduction of electronic systems, in particular Prozorro, has been an example of successful reform that has changed the model of interaction between the state, business and society. Open data, process automation and the possibility of public control have ensured new standards of accountability that contribute to increased trust in state institutions.

Along with these achievements, a number of challenges remain, including cyber threats, insufficient digital literacy among users, legal gaps and technical limitations. These require comprehensive solutions that combine the development of digital platforms with the improvement of legislation, the enhancement of staff competencies, and the implementation of appropriate information policies. Only under such conditions can digital tools become a stable foundation for further democratic transformations and modernisation of governance.

Prospects for further research lie in exploring the possibilities of applying artificial intelligence, blockchain and other innovative technologies in the field of public administration. Particular attention should be paid to analysing the integration of Ukrainian digital solutions into the European and global space, as well as assessing the impact of digitalisation on the development of public control and political culture in society. This opens up a wide field for interdisciplinary research aimed at forming a new paradigm of transparent and accountable governance.

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DIGITAL IDENTITY AS A KEY FACTOR IN THE ESTABLISHING OF THE RIGHT TO A NAME

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Summary

The article explores the phenomenon of digital identity as a new form of personification of an individual in virtual space and its interrelation with the right to a name, which constitutes one of the key components of the system of personal non-property rights. The essence and structure of the concept of “digital identity” are revealed, and its main levels – legal, social, and behavioral – are identified, reflecting the multidimensional nature of modern personal identity in the digital environment. Special attention is given to the tools of self-expression in the network – nicknames, pseudonyms, accounts, avatars, and digital signatures – through which user personification in the online space is carried out.

The paper analyzes the trends in the formation of digital identity in the context of the digitalization of society, the development of social networks, and the growing influence of artificial intelligence technologies. The main threats to the realization of the right to a name in the digital space are outlined, including fake accounts, cybersquatting, identity theft, user anonymity, and the spread of deepfake technologies, which create risks of falsifying a person’s digital image.

The necessity of improving national and international legal regulation in the field of digital identity protection is substantiated, in particular through the development of unified standards for user verification and authentication, as well as the introduction of ethical principles of interaction within the digital communication environment.

Key words: digital identity, right to a name, nickname, account, pseudonym, avatar, anonymity, cybersquatting, deepfake.

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1. Introduction

The rapid development of digital technologies has led to the emergence of a new type of social and legal reality in which an individual interacts with the surrounding world not only in the physical but also in the virtual dimension. As a result, the concept of digital identity has arisen – a complex phenomenon that combines personal data, digital traces, social roles, and technological mechanisms of identity verification.

Digital identity has become a key instrument of communication, access to services, socialization, and the exercise of rights in the modern information society (*European Union, 2024*). However, along with these advantages, new risks have emerged, related to the potential theft, falsification, or unlawful use of digital personal attributes.

One of the most important rights undergoing transformation in the context of digitalization is the right to a name. In the digital space, a name ceases to be merely a legal identifier; it acquires new forms – nicknames, domain names, accounts – which may simultaneously hold economic, social, and cultural value.

The purpose of this article is to examine the essence of digital identity, to identify its legal aspects, and to determine the main challenges arising in the realization of the right to a name under conditions of digitalization.

The objectives of the study are to:

- reveal the structure and levels of digital identity;
- analyze the role of identity elements (nickname, pseudonym, account, avatar);
- clarify the legal issues related to the use of a name in the digital space;
- formulate directions for improving legal regulation in this field.

The methodological framework is based on general scientific methods (analysis, synthesis, induction, deduction) and special legal methods (comparative-legal, formal-legal, and systemic), which make it possible to consider digital identity as a legal and social category within the dynamics of the modern digital environment.

2. The Essence and Structure of Digital Identity

The concept of digital identity encompasses a set of characteristics that allow an individual to be identified in the virtual environment. It includes not only officially verified data but also information formed through a user's interaction with digital services – such as logins, electronic signatures, profiles, search history, financial transactions, and email addresses.

Digital identity has a multilevel structure:

Legal level – officially verified personal data that carry legal significance (e.g., electronic signature, digital passport, BankID, MobileID) (*Chernenko, 2020*);

Social level – information voluntarily disclosed by a person online (accounts, biographical details, photos, personal blogs) (*Rybalka, 2021*);

Behavioral level – data on user actions in the digital environment (behavioral patterns, purchase history, preferences, digital traces) (*Blikhar, 2024*).

Thus, digital identity represents a multidimensional construct that goes beyond official data and includes the broader context of human existence in virtual space.

A distinctive feature of digital identity lies in its dynamic and fragmented nature. In contrast to classical “real” identity, which is mainly embodied in official documents, digital identity is formed from numerous sources and is constantly changing. A person may possess several identities simultaneously: one for governmental services, another for professional activities, and yet another for social networks or entertainment platforms.

Scholarly literature distinguishes several approaches to the interpretation of digital identity:

Technical-legal approach – considers digital identity as a means of user verification in the network through specific technologies (electronic signature, biometric data, etc.) (*Bosak, 2021*; *Blikhar, 2024*);

Sociological approach – views digital identity as a reflection of a person's social role in virtual space (*Pikulia et al., 2023*);

Comprehensive approach – combines technical, legal, and social aspects, emphasizing that digital identity has both legal and cultural-communicative significance (*Zahorodniuk, 2022; Shyshka, 2020*).

It is important to note that digital identity is closely connected with the right to a name, since a name has traditionally served as the main marker of a person within the legal system. In the digital era, a name may exist in the form of a nickname, domain name, email address, or another unique identifier. This necessitates a new legal approach to regulating relations concerning the protection and use of names in the digital environment.

Moreover, the increasing complexity and autonomy of artificial intelligence systems require legislative frameworks that ensure their proper regulation, particularly in the context of military technologies. Finding balanced solutions in this regard will not only preserve human dignity and rights but also contribute to the development of friendly and humane artificial intelligence, capable of exerting a positive influence on society.

3. Elements of Digital Identity

Digital identity, as a complex and multifaceted phenomenon, does not exist independently of the specific tools and manifestations through which it is realized in the virtual space. Its structural elements are various markers of individualization that allow a person to position themselves within the network and interact with other users. The most important among these are nicknames, pseudonyms, accounts, and avatars.

Nicknames are conventional names used by individuals to represent themselves in the digital environment. They may be derived from real names or entirely fictional. A nickname performs an identification function, ensuring the uniqueness of a user's presence within a community or platform. At the same time, it serves as a means of self-expression, reflecting personal preferences, creativity, or one's social role. The legal issues surrounding nicknames involve questions of copyright, unfair use of others' identifiers, and the protection of the right to a name in the online environment (*Blikhar, 2024*).

Pseudonyms have a deeper historical tradition, having been used by artists, scholars, and public figures long before the advent of digital technologies. In the virtual space, a pseudonym performs similar functions to a nickname but usually carries greater cultural or professional significance. For example, a writer, blogger, or activist may use a pseudonym to preserve anonymity or to build a recognizable persona. From a legal standpoint, a pseudonym is protected as an element of the right to a name and may also be subject to protection in cases of plagiarism or unauthorized use (*Rybalka, 2021; Shyshka, 2020*).

Accounts are personalized user records within a particular information system (social network, email service, banking platform, etc.) that combine various elements of digital identity. An account includes a login, password, personal data, as well as a nickname or pseudonym, avatar, and the totality of activity accumulated within it. It serves as the central tool of communication and interaction in the digital space, as access to most services is carried out through an account. In legal doctrine and practice, an account is viewed as a set of intangible personal assets, and its unauthorized use or theft is qualified as a violation of human rights (*Bosak, 2021*).

Avatars are visual images or symbols that a user selects to represent themselves in the digital environment. They may be realistic (a photograph) or symbolic (a drawing, icon, or 3D model). An avatar performs a dual function: it acts both as a personal identifier and as a medium of artistic or cultural self-expression. In modern virtual spaces, particularly in metaverses, the avatar becomes a key element of a person's presence, through which communication,

economic activity, and even legally significant actions are conducted. This gives rise to new legal challenges, as it raises the issue of the correlation between the avatar and the real-world individual, as well as the extent of liability for actions committed under its “mask” (Pikulia et al., 2023; Zahorodniuk, 2022).

Table 1

The Main Elements of Digital Identity and Their Functions

Element	Main Function	Legal Aspects	Examples
Nickname	Identification, self-expression	Copyright, protection of the right to a name	gamer123
Pseudonym	Creative self-expression	Protection against plagiarism	Mark Twain,
Account	Access to services, integration of identity elements	Human rights violations in case of theft	Facebook
Avatar	Visual identification, self-presentation	Correlation with the real individual	3D character model, photo

These elements complement one another and together form a comprehensive picture of digital identity. While nicknames and pseudonyms primarily perform a verbal-symbolic identification function, avatars add a visual dimension, and accounts integrate all components into a unified system. Through these elements, the right to a name is realized in the virtual space; however, it takes on a modified form that requires contemporary legal understanding and appropriate regulatory frameworks.

4. Challenges to the Right to a Name

The use of a name in the digital environment has a number of features that significantly distinguish it from traditional forms of identification in legal and social relations. While in offline reality a name primarily serves as an official identifier, online it acquires a broader spectrum of meanings and forms.

First, a name in the online space often takes on alternative forms – such as nicknames, pseudonyms, domain names, or email addresses. This creates a situation in which the same individual may have multiple representations, each performing a specific function: professional, social, creative, or communicative.

Second, an online name is frequently linked not only to a person but also to the technical parameters of the system in which it is used. For example, to access email or a social network, a user applies a unique login, which becomes analogous to a name within that specific digital space. In some cases, the login may entirely replace the real name, raising the legal question of whether it should receive the same protection as a traditional name.

Third, in the digital environment, a name may be either real or fictitious. Social networks such as Facebook strive to ensure the use of real names, whereas other platforms (Twitter/X, Instagram, online forums) allow users to choose arbitrary identifiers. This promotes freedom of self-expression but also generates risks, including fake accounts, fraud, and cyberbullying.

Fourth, the online use of a name introduces new legal categories, such as domain names. A domain name serves as an identifier on the Internet and may simultaneously be the object of intellectual property rights. Conflicts between domain names and registered trademarks are a common practical issue requiring regulation at both national and international levels.

Fifth, an online name acquires a global character, as it exists simultaneously across different jurisdictions. This complicates its legal protection, since national legislations vary in their approach to defining and safeguarding personal non-property rights.

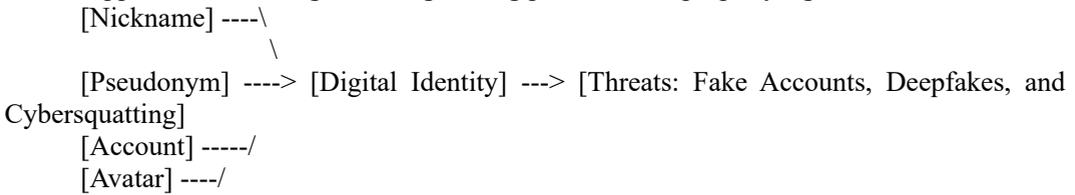


Fig. 1. The Interconnection of Digital Elements and Risks to the Right to a Name

Special attention should be paid to the phenomenon of anonymity and pseudonymity on the Internet. Many users choose fictitious names to protect their privacy or for self-expression; however, this should not undermine the legal status of their real name. It is necessary to ensure a balance between the freedom to choose a mode of online self-presentation and the need for identification in cases of legal violations.

Digitalization creates new conditions in which the traditional right to a name faces a number of complex challenges. The emergence of global online platforms, anonymous services, and artificial intelligence technologies significantly complicates the control over the use of names and the protection of individual rights. The main threats in the modern digital environment include anonymity, fake accounts, cybersquatting, and deepfake technologies.

Anonymity allows users to conceal their real identity by creating pseudonyms or nicknames. While this provides privacy and personal security, it simultaneously generates risks of abuse, such as the dissemination of false information, cyberbullying, or fraud. From a legal perspective, anonymity raises questions about the possibility of holding individuals accountable for unlawful actions, complicating the realization of the right to a name as a right to protect one's identity (*Chernenko, 2020*).

Fake accounts and fraudulent profiles are created to imitate real persons or brands. They infringe upon the right to a name because they mislead third parties and may cause reputational harm. Protection against such practices requires identity verification mechanisms and rapid platform response, which are not always adequately implemented (*Digital Security Lab Ukraine, 2023*).

Cybersquatting involves the registration of domain names identical or similar to well-known brands or individuals' names, with the intention of reselling them or gaining profit. This practice violates the right to a name, as well as copyright and trademark law, necessitating specialized legal regulatory mechanisms such as domain name dispute resolution policies (*Murashko, 2019*).

Deepfake technologies allow for the creation of audio and video content in which a person appears or sounds as if performing specific actions or expressing particular opinions. The use of deepfakes can lead to the unauthorized dissemination of personal images, reputational damage, and deception, directly infringing upon the right to a name and associated non-property rights (*Blikhar, 2024; Digital Security Lab Ukraine, 2023*).

5. Prospects for Improving Legal Regulation

Digitalization complicates jurisdictional protection. Since online actions are often carried out on a global scale, the legal mechanisms of a single country may be insufficient for effective response. This necessitates international cooperation and the harmonization of norms regulating the protection of names and addressing digital violations.

For the effective protection of digital identity, a systematic legal modernization is required, encompassing the following directions:

- the creation of a unified legislative framework for regulating digital personal data;
- the implementation of international standards for the protection of digital privacy;
- the development of mechanisms for verifying digital authenticity;
- the ethical regulation of artificial intelligence technologies in the creation of digital representations.

In the future, the right to a name may acquire an expanded interpretation – as the right to control one's digital identity, encompassing not only the name itself but the entire set of personal digital attributes.

6. Conclusions

Digital identity is an integral element of modern life, combining legal, social, and technological aspects and determining the ways in which individuals present themselves in the virtual space. It is directly linked to the right to a name, but assumes new forms and functions in the digital environment.

In the digital context, a name serves not only as an official identifier but also as a means of self-expression, communication, and economic activity. At the same time, digitalization generates new risks – from fake accounts to deepfake technologies – requiring a comprehensive legal response.

Further research should focus on developing the concept of the right to digital identity as a distinct legal category, which would ensure a balance between freedom of online self-expression, user security, and the protection of personal non-property rights.

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THE TOKYO TRIBUNAL: HAD A GO AT, BUT CHOSE TO NOT UTTER A WORD OF PUNISHMENT

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Summary

Guided by the idea of elaborating a comprehensive concept of punishment in international criminal law, present theoretical explication is devoted to the most extensive reflections stemming from the contemplation of the landmark, following the Nuremberg Tribunal's activities, that represented a historical milestone for the international criminal justice, – the timeframe of the functioning of the Tokyo Tribunal. The main emphasis is focused on the goal of constructing a common context for the perception of punishment within the framework of the Tokyo Trial. It is established that the relevant challenge cannot be rationally addressed in a manner that is detached from the general sense of the Tokyo Tribunal as such. Derived from the general impression, the image of punishment by the Tribunal is found to be vulnerable to several principal challenges: 1) lack of independence in appreciation, typically in the benchmarking; 2) belittling of accomplishments; 3) the persistence of political scheming; 4) the cultivation of a paradigm of all-embracing criticism, leading to a forgetfulness, among others. Inappropriateness of interpretation of the operations of the Tribunal and the sentences it has imposed solely from the standpoint of total contempt, which ultimately undermines the foundations of international criminal justice was pointed out, and the necessity of further scholarly efforts to consider the severity and swiftness as cornerstones of the modern concept of punishment in international criminal law was outlined.

Key words: punishment, Tokyo Tribunal, Tokyo Trial, Tokyo War Crimes Trials, International Military Tribunal for the Far East, fight against impunity, international criminal justice, international criminal law.

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1. Introduction, or a brief prelude to the etiology of the *problematique*

Against the backdrop of the dramatic increase in interest in international criminal law and international criminal justice in the last decade (*Boister & Cryer, 2008b: xxxiii*) there has been an intensification of attempts to “return to the past for the sake of the present”. Sometimes for remembering (*Takatori, 2008: 78*), often for reopening (*Watanabe & Field, 2021*), revisiting (*Simpson, 2009; Tanaka, McCormack, & Simpson, 2010*), re-examining (*Walkinshaw, 1949: 299; Boister, 2014: 4*), rereading (*Dittrich, von Lingen, Osten, & Makraiová, 2020: i*) and reappraisal (*Boister & Cryer, 2008a*), but more frequently to fill the gaps (*Kaufman, 2013: 755*) by exploring (*Boister, 2014: 4*) what has not attracted a great deal of scholarly attention (*Sellars, 2010: 1092*) and yet least studied (*Kaufman, 2013: 795*), that has been virtually ignored (*Brackman, 1987: 22*) and remains largely forgotten (*Boister & Cryer, 2008b: xxxiii*). Usually in search of contemporary resonances (*Pritchard, 1995: 25*) and relevance (*Dittrich, von Lingen, Osten, & Makraiová, 2020: i*), although always for the own

unique reasons. Among all others, in this particular occasion, it is necessary to frame a general context for the comprehension of the phenomenon of punishment within the “Tokyo formation” as one of the earliest efforts towards meeting the requirement for “... a holistic account of punishment ...” (Stahn, 2019: 382) in international criminal law.

2. Nuremberg and Tokyo: an “illustrative comparison” or a “humiliating collusion”?

The very first, preliminary and superficial glance at the earliest attempts to comprehend the issues surrounding the Tokyo Trial (Liu, 1948: 168) reveals the origins of a rather caustic sense of disregard for literally everything that this International Military Tribunal seemed to dwell on (Comyns Carr, 1948: 150) or, at the very least, should have stood for (*International Military Tribunal for the Far East*, 1949: 184). Initially, and over time, this was most often expressed not just simply straightforward and openly (Minear, 1971: 3, 19), but even more declaratively, if not manifestly instead (Sellars, 2010: 1093; Guillemin, 2017). Indeed, though nowadays such considerations are voiced much more “diplomatically” (Boister, 2014: 4, 6) and not as directly as it used to be, so to speak, “between the lines”, and much less demonstratively (Daqun & Binxin, 2016: 50, 55), however still disparagingly enough (Boister & Cryer, 2008a: 1). Yet why would that happen? And how did it all end up in such a situation?

Apparently, the “breaking point” was the Tokyo Tribunal’s overall original positioning, which, in many ways, was most likely not entirely appropriate. It all began with what looked like a fairly harmless perception of it as a component of a unified and single process of punishment of major war criminals (Walkinshaw, 1949: 299) following the outcome of the World War II (Kaufman, 2013: 756) or, more specifically, as a certain logical continuation of the Nuremberg Tribunal (Totani, 2010: 147). Sometimes even to such an extent that it actually starts to be deemed as “Tokyoberg” (Simpson, 2020: 17). And pretty soon, this led to Tokyo finding itself, as it is commonly said, in the shadow of its “primordial predecessor” (Martinez, 2012: 43), willingly or involuntarily “doomed” to exist in a paired (and probably inseparable) tandem, in other words, within a paradigm of permanent correlation and contrast, which is inevitably accompanied by the abundance of constant references and appeals to the “Pioneer” (Beigbeder, 2011: 20).

Perhaps the winged phrase “verity is cognized in comparison” was taken far too verbatim, since absolutely all discourse concerning Tokyo, in fact, was (and is still at large) concentrating on the question, was it the same in Nuremberg (Sinuna, 1999: 59-60)? Of course, under the guise of good intentions to obtain comparativistic and prognostic insights, in the pursuit of seeking similarities and differences (Kaufman, 2013: 756), as well as in the endeavour to identify distinctive characteristics (Kaufman, 2010: 764), an alarming trend soon becomes increasingly evident. At the same time, the further it goes, though, the more, considering Nuremberg and Tokyo as one cohesive event (Simpson, 2020: 17), along with the likeness in their “designs, staffs and operations” (Kaufman, 2010: 755), Tokyo begins to be treated as a “sister institution” or a “twin tribunal” (Dittrich & Makraiová, 2020: 3), and before long, as an “Asian twin of Nuremberg” (Klaus, 2025: 322).

Nevertheless, the point is obviously not the label itself, but what lies beneath it. It is all about the attitude that is often projected in its connection. And clear vindication of this is its rapid transformation as distinctions in the “lengths, verdicts, and sentences” (Kaufman, 2010: 764) between the Tribunals were established. The astonishing is how radically, in an instant, the “primal warmth of family ties” has been swapped for a “sharp line of negative criticism”, presenting Tokyo merely as a “replica” of Nuremberg (Totani, 2010: 147), momentarily turning it

into the “other Nuremberg” (*Brackman, 1987: 27*), – “it’s less well-known sibling at Tokyo” (*Sellars, 2010: 1092*), distancing the not so long ago twins “far apart” (*Safferling, 2020: 427*) from each other.

As a result, this train of thought has rapidly elevated all critique to a kind of mantra that presents Nuremberg as a “noble exercise” and the “product of good lawyering”, whereas Tokyo as a “racist exercise” or the “product of revenge” (*Maga, 2001: ix-x*), which is more reminiscent of grotesque “shaming experience” (*Safferling, 2020: 431*) that only confirms the assumption that the “Nuremberg-Tokyo tale” has always been more of a study in “ugly contrast” than it was “decent comparison” (*Maga, 2001: x*).

3. International Military Tribunal for the Far East: between a “lesson learned” and “was there ever a lesson?”

It would be quite reckless to assume that such a fiercely controversial environment has a favourable effect on exploring Tokyo as a truly isolated, autonomous and self-sufficient phenomenon (*Totani, 2008: 214*). And even if all the negative aspects are put aside, it is not only about that. An approach is also involved. The method that is being used. It is the same here as it was in Nuremberg (*Hirsch, 1946: 312*). The blame for this, presumably, lies with the admonition that “... the world must profit in every way from the lessons of the Nuremberg trial ...” (*Brackman, 1987: 223*). Therefore, at this moment, and in a very reduced form, understanding the “Tokyo theme” boils down to “learning a lesson” (*Futamura, 2007: 12*), also known as “lessons learned exercise” (*Daqun & Binxin, 2016: xvii*). But then again here, nothing is that simple. Before clarifying whether the lesson has been learned, it is probably necessary to question what it consists of. However, this is not the starting spot either. Some go even further, wondering whether there was a lesson at all (*Cryer, 2018: 80*).

Reflecting on the matter, attitudes vary dramatically (*Takatori, 2008: 78*), ranging from strongly negative to somewhat positive (*Cryer, 2018: 102*) beliefs. For example, it has been argued that several lessons may be extracted from the major decision-making process, which was carried out “... primarily through the prism of a combination of political and pragmatic factors ...” (*Kaufman, 2013: 795*). Meanwhile, an alternative opinion suggests that “... some lessons can be learned from ...” three major limitations of the Tribunal, namely the impact of politics, non-accountability of states, and also personnel and financial constraints (*Daqun & Binxin, 2016: 55-56*). And what is more, there does seem to be a growing response and endorsement of the idea that the “... main lesson though must be related to the victor’s justice critique ...” (*Boister & Cryer, 2008a: 326*). However, is that truly it?

At this juncture, one might reasonably ask whether there is really nothing in the entire Tokyo’s “law story” (*Sellars, 2010: 1092; Boister & Cryer, 2008a: 328*) except a profound concern over all of its “imperfections”. Is there absolutely nothing else to be on the agenda besides genuine anxieties about “... numerous obstacles, shortcomings and criticisms ...” (*Dittrich & Makraiová, 2020: 1*)? Why has the spotlight suddenly shifted to the issues of selectivity and legitimacy (*Daqun & Binxin, 2016: 45*), legality (*Cryer, 2018: 97*) and procedure (*Green, 1989: 190*), and at what particular moment have all of that taken precedence over the “cause of justice” (*Totani, 2008: 208*) and a “... compromise between the Continental and the Anglo-American system ...” (*Walkinshaw, 1949: 300*)?

Such questions undoubtedly prompt the thought that an insightful lesson has been taught, but many, it seems, have failed to digest the science properly. And this is not about a dry statement of existing problems, but rather the core mission entrusted to the Tribunal, which many

have gradually relegated to the very background. This refers to the umbrella philosophy that “evil” must never go unpunished (*Maga, 2001: xiv*), that is, supposed to be the punishment of war criminals (*Boister & Cryer, 2008b: xxxvi, 79*).

4. “Punishment of war criminals” and “restoration of peace”: double standards of *realpolitik*

In the ardent pursuit of extracting universal wisdom and invaluable experience from the myriad of edifying lessons and exercises, in lieu of focusing solely on the issue of punishment of war criminals, the titanic efforts of scholarly minds are concentrated on the most thorough deliberation of how fair the Trial was (*Liu, 1948: 168; Yasuaki, 1986: 45*), and how well it complied with the highest of the highest standards of the rule of law (*Totani, 2008: 194; Walkinshaw, 1949: 363*). The deeper the dive progressed, the closer it came to suggesting that “... injustice had been done ...” (*Totani, 2008: 214*). The idea is being smoothly shaped that the Trial was unfair (*Boister & Cryer, 2008a: 325*) and the prosecutions were biased, politically motivated and manipulated (*Daqun & Binxin, 2016: 51, 52*). Such kind of a vision not only forms the basis of the argument that justifies the application of the censorious “show trial” label (*Boister, 2014: 3*), but also portrays the Trial as a farce (*Boister & Cryer, 2008a: 325*) that publicly expresses not justice, but brute force (*Boister, 2014: 6*), clearly signalling that it was “... an exercise in *realpolitik* [emphasis added] rather than accountability ...” (*Boister & Cryer, 2008a: 322*).

Thus, if the Tribunal itself was presented as the consequence of an “... arbitrary exercise of power on the part of the victorious nations ...” (*Cho, 1967: 313-314*), how then should the punishment be regarded? In this light, certainly exclusively as something that constitutes the satisfaction of a thirst for revenge (*Boister & Cryer, 2008b: 816*) over defeated Japan (*Green, 1989: 193*) and is conceived as collective responsibility on behalf of the nation as a whole (*Futamura, 2011: 3*). But unlike Nuremberg, it tends to be “more draconian” (*Boister & Cryer, 2008a: 260*) and the one that had no direct impact on post-war Japanese society (*Futamura, 2011: 1*). Moreover, it appears to lack sufficient power to persuade the vanquished (*Takatori, 2008: 92*) and, to that effect, is completely unsuitable for achieving the goal of the reconstruction of peace and trust among the war-torn nations (*Takatori, 2008: 92*).

What is considered more practical, in turn, is “exceptional pragmatism”, which revolves around setting the right priorities, – an ideology where peace is being put above everything else (*Matwijkiw, 2009: 24, 2, 1*). By treating it as an “... art of political compromise ...”, *de facto* literally sacrificing justice for its sake (*Cherif Bassiouni, 2000: 214, 218*), the support for the “... forgiveness and reconciliation ...”, instead of the use of criminal sanctions is being promoted (*Minow, 2019: 2*).

It is intriguing to observe how deliberate impunity (*Matwijkiw, 2009: 25*) is tolerated when it concerns the pursuit of the so-called “peace” (*Cherif Bassiouni, 2000: 229*), yet is aggressively contested when it comes to punishment of war criminals (*Hayashi, 2020: 103*), even if for the same reasons (which, in our humble opinion, is highly doubtful, by the way). Is this not a double standard? Does not that seem cynical (*Futamura, 2011: 13*), or at least hypocritical?

5. The Tokyo War Crimes Trial: from “neglect” to “oblivion”

This is rather ironic, as the entire situation appears to be no less extraordinary, given the whole plethora of fairly timid assumptions regarding what is widely noted as the highly ambiguous legacy of the Tokyo Tribunal (*Sellars, 2010: 1098; Ushimura, 2003*). Not surprisingly, though. How else could it be, when any attempt to “go beyond the established boundaries of understanding” ends in tentative guesses about the possibility of underestimating the Tribunal’s legacy if a trial is perceived as being unfair (*Boister & Cryer, 2008a: 326*)? What can be expected from doubts that at least some benefit can be derived from it (*Cryer, 2018: 80*)? From the uncertainty as to whether it can function as the “... building blocks of international criminal law ...” (*Boister, 2014: 4*)? What “... contribution to the field of international law ...” is there to speak of (*Cohen & Totani, 2018: 22*) if Tokyo’s reputation is being exposed as “... arguably tainted ...” (*Boister, 2014: 4*)? And finally, what impression should the Japanese people have of the “... possibilities and promises of international criminal justice ...” (*Cohen & Totani, 2018: 22*) if it is declared that “... war crimes prosecution was an issue of little importance ...” (*Futamura, 2011: 3*)? How will the punishment be perceived after this?

Even so, that is not all. It should be noted that behind the ostentatious tinsel of total denial and harsh statements about virtually every flaw in the Tribunal’s operation, there is an increasingly visible meticulous conveyance of a signal that effectively reinforces the narrative of the expediency of forgetting everything that happened there “... at the earliest possible moment ...” (*Schwarzenberger, 1950: 289-290*). Over the years, it is most probably that the relevant statement was understood quite literally, since the further it goes, the more one becomes ascertained how accurate and valid the idea is that, “... in truth, the IMTFE has simply been swallowed up by the biggest black hole in the history of the twentieth century ...” (*Brackman, 1987: 22*). Regrettably, that in the rush to forget, what must always be remembered (*Takatori, 2008: 92*) is also hastily erased from the memory.

6. Conclusions. The aftermath

There is no way to convey in words how curious the trajectory of reflections on the Tokyo Trial and the Tokyo Tribunal is (*Cohen & Totani, 2018: 21*). It is surprising how rapidly the path was trodden from the embrace of the holding of the trial in Tokyo as a remarkable international undertaking at the time (*Dittrich & Makraiová, 2020: 1*); an act of international justice, which was to be sent a very strong and powerful message to the international community (*Daqun, 2020: 91*) by punishing war criminals (*Boister & Cryer, 2008b: 816*); a trial that was a monument to fairness (*Boister & Cryer, 2008a: 74*), an “achievement in its own right” (*Totani, 2008: 214*), that contributed to international understanding and goodwill (*Comyns Carr, 1948: 151*); a trial which will be the verdict of history and a very real step toward bringing the world under a reign of law (*Walkinshaw, 1949: 363*); a Tribunal, which brought about not only a grand scale Indictment (*Pritchard, 1995: 28*), but also delivered a massive and most impressive Judgment (*Comyns Carr, 1948: 141*), desiring severe and swift punishment for the guilty (*Ju-ao, 2018: 2*) to a “... precedent that legal history can only consider with a view not to repeat it ...” (as cited in *Boister & Cryer, 2008a: 302*).

It is striking how precipitous the idea of making the accused accountable for their (*Ju-ao, 2018: 4*) horrible crimes (*Maga, 2001: 138*) and the inalienable obligation to punish the war criminals and suppress militarists (*Ju-ao, 2018: 120*) began to fold (*Ju-ao, 2018: 4*), ignored and was too quickly forgotten (*Maga, 2001: 138*).

In the current situation, it is hardly possible to limit oneself to a mere caveat of the "... planted seeds of distrust in the impression of the international criminal justice system ..." (Daqun & Binxin, 2016: 50). This is much more than that. It is about an encroachment on the philosophy of perceiving punishment of such crimes as imperative (Ju-ao, 2018: 20).

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LEGAL PROTECTION OF EMPLOYEES' HEALTH AND SAFETY USING ARTIFICIAL INTELLIGENCE: EUROPEAN PRACTICES

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Summary

This paper examines the legal safeguards for employee health and safety in the context of the increasing integration of AI in European workplaces. Concurrently, it addresses the emergent risks to physical and psychological well-being. These risks encompass potential accidents, elevated stress levels attributable to algorithmic management systems, and discriminatory practices emanating from AI-driven data collection.

The present study undertakes a critical analysis of the European Union's regulatory endeavors, with a particular focus on the proposed Artificial Intelligence Act. This legislative initiative aims to establish ethical guidelines and obligations for the design, development, and utilization of artificial intelligence within the context of the workplace. The analysis focuses on the balance between technological advancement and the fundamental rights of workers, including privacy, fair working conditions, and protection against health risks. The study further delves into the responsibilities of employers and AI providers in ensuring workplace safety, emphasizing the necessity of human oversight and the provision of clear information to users interacting with AI systems. The paper's conclusion calls for a comprehensive approach, integrating legal regulations with proactive safety measures. This would ensure that the benefits of AI are realized without compromising the health and safety of employees in European workplaces.

Key words: scope of labor law, expansion of labor law, digitalization, globalization, labor relations, occupational safety, employee health.

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1. Introduction

The rapid integration of Artificial Intelligence (AI) into the workplace is transforming traditional labor dynamics, presenting both unprecedented opportunities and novel challenges to employee health and safety. This transformation, marked by the increasing use of AI in domains such as employee performance planning, evaluation, and autonomous work processes, necessitates a re-evaluation of existing legal frameworks and occupational safety practices. The subject's novelty is rooted in its intersection of technological innovation and human well-being, where the conventional understanding of labor relations is challenged by the advent of intelligent machines capable of influencing and making decisions that directly impact workers.

The contemporary legal and ethical framework is encountering challenges in its ability to effectively address the advancements in technology, thereby creating a pressing need for the establishment of clear and comprehensive guidelines that are designed to safeguard the interests of employees and prevent potential harm. While AI offers significant potential in augmenting productivity and fostering health through innovations such as exoskeletons, it also introduces risks such as physical accidents, psychological stress, and discriminatory practices. This paper

addresses the pressing need to develop suitable legal solutions in the context of the increasing use of AI systems.

The primary objective of this research is to examine the extant and proposed legal mechanisms within the EU that are designed to safeguard the health and safety of employees in the age of AI. The following research tasks were delineated:

- 1) to analyze the potential risks to employee health and safety associated with the integration of artificial intelligence (AI) in the workplace;
- 2) to evaluate the EU's regulatory framework, particularly the Artificial Intelligence Act;
- 3) to examine the roles and responsibilities of employers and AI providers in ensuring workplace safety.

This research employs a mixed-methods approach, integrating legal analysis with a review of extant literature on the impact of AI on labor relations. A thorough examination of EU directives, regulations, and proposed legislation serves as the foundation for the legal analysis. Moreover, reports from international organizations such as the International Labour Organization (ILO) and academic articles are used to contextualize the discussion and provide empirical evidence of the challenges and opportunities presented by AI.

2. Potential risks to employee health and safety associated with AI integration

The contemporary moment is characterized by the increasing significance of artificial intelligence mechanisms in domains such as employee performance planning and evaluation, as well as in the management of algorithms within the context of labor relations (*Nowik, 2021*). The field of artificial intelligence has the potential to exert a profound influence on the realm of work management. This influence can be manifested not only through the provision of assistance to the work process, but also through the autonomous management of that process. In other words, artificial intelligence can make autonomous decisions based on the collected data. In such circumstances, novel and previously unexplored relationships between employees and AI emerge (*Nowik, 2021*).

The potential for artificial intelligence to directly enhance employee health is evident. For instance, the integration of exoskeletons into work environments has been demonstrated to augment productivity while fostering health and safety. An exoskeleton is a type of robot that is worn by a person as a suit. It is designed to improve the dynamics of the user's limbs and joints (*Sawicki et al., 2020*). This allows employers to perform biometric analysis of employees and help them regain full physical fitness after injury (*Ajunwa, 2018*). Additionally, exoskeletons have been shown to alleviate pressure on the spine. For instance, in South Korea, a device was developed to support the feet, legs, and lumbar region of the human body, thereby enabling workers to lift and carry heavy loads.

Therefore, while the development of AI undoubtedly brings with it many opportunities, it is imperative to acknowledge the potential risks that may arise in connection with it. The influence of artificial intelligence on the health and safety of workers is a growing concern. In recent developments, the European Union has been implementing specific measures to address this issue.

Despite the numerous opportunities for incorporating artificial intelligence into the work process to enhance employee performance, there are also some occupational safety concerns. While the integration of artificial intelligence has the potential to enhance risk management in healthcare settings, it is imperative to acknowledge the inherent risks associated with its implementation. The primary concern pertains to the potential for accidents at work that result

in employee injuries (Gaskins, 2004). As foreign scientists have observed, even exoskeletons equipped with artificial intelligence to assist workers in movement or rehabilitation can pose a risk of injury if they malfunction. Consequently, the implementation of suitable occupational safety and health policies is strongly advised when utilizing these devices (Ajunwa, 2018). Furthermore, the integration of artificial intelligence into robotic systems may potentially introduce novel risks to the work environment, which have not been previously identified (Cerka et al., 2017). A salient concern pertains to the establishment of effective communication between these robots and their human counterparts, a potential hazard that merits due consideration within the context of occupational safety (Jarota, 2021).

Consequently, contemporary production environments encompass a broad spectrum of potential accident sources, extending beyond conventional mechanized processes to incorporate digital networks that govern operational activities. The management of work processes by artificial intelligence has been shown to result in a rush and time pressure that can lead to physical injury for employees (Wigert & Agrawal, 2018). Concurrently, the psychosocial risks associated with artificial intelligence, which have the potential to adversely affect an employee's mental well-being, should not be disregarded. These risks primarily manifest themselves in the form of employee stress related to job performance, mainly when the nature of the work changes (Leka et al., 2015). Mental health is also influenced by physical risks, as there is often an intersection between physical and psychosocial risks (Leka et al., 2015).

Psychosocial risks in the workplace can emerge from the implementation of algorithmic management systems that oversee the workflow. These systems empower employees by granting them control over their work environment (Parent-Rocheleau & Parker, 2022). A notable concern is the potential for employees to become aware of their employers' access to their confidential data. To illustrate, consider a scenario in which genetic screening is utilized to assess an individual's propensity for developing a particular disease. This screening would be conducted prior to the commencement of employment, thereby precluding any exposure to potential disease-inducing factors in the work environment. Consequently, employers may exercise discretion in their hiring practices by considering factors that could potentially disqualify a candidate (Field, 1983). Employers may employ artificial intelligence to collect information about an employee's health to reduce potential sick leave costs (Bernstein, 2006). However, the collection of data concerning an employee can, for instance, catalyze discriminatory practices against the employee (Ajunwa, 2018), which can result in a range of adverse outcomes, including depression (Gordon, 2016). The question remains as to what the employer will do with this knowledge in a specific case, and whether it will ultimately result in the termination of the employment contract. The possibility of termination of employment can result in elevated levels of stress for the employee. The apprehension of losing one's employment can have deleterious effects on an employee's mental well-being and disposition, potentially resulting in interpersonal conflicts and professional burnout (Quilnan, 2007). Conversely, information regarding employees can facilitate the anticipation of potential health complications and the formulation of proactive treatment strategies (Flaherty, 2009). Nevertheless, employers should not utilize health information to discriminate against employees (Draper, 1996).

3. EU Legal Frameworks and the AI Act: Assessing Efficacy in Addressing Workplace Risks

The European Union has identified novel risks in the workplace that employers should take into consideration, as outlined in the European Pact for Mental Health and Well-being

(Slovenian EU Presidency, 2008) and the EU Strategic Framework on Health and Safety at Work 2021–2027. As the world of work transforms, the question of safety and health assumes paramount importance (European Commission, 2021b). The subject of AI regulation has been a topic of discussion in EU bodies for several years. For instance, in October 2020, the European Parliament adopted specific resolutions about artificial intelligence, two of which address occupational safety when utilizing artificial intelligence. In its resolution of October 20, 2020, on the ethical framework for artificial intelligence, robotics, and related technologies (European Parliament, First Resolution, 2020), the European Parliament made several requests to the European Commission. Among these requests was the proposal of a comprehensive regulatory framework. This framework would cover ethical principles and obligations related to the design, development, and use of AI, robotics, and related technologies in the EU, including software algorithms. The resolution underscores that the fundamental concept should be predicated, in particular, on the principles of human-centeredness in the domains of artificial intelligence, robotics, and associated technologies, that is, technologies created by humans and controlled by humans. Moreover, the European Parliament has indicated that prospective regulations should prioritize ensuring the safe utilization of technologies, providing users with clear information regarding their interaction with artificial intelligence systems, and ensuring the availability of essential information for their operation.

In another resolution dated October 20, 2020, containing the Commission's recommendations on the civil liability regime for AI, the European Parliament (European Parliament, second resolution, 2020) advocated that, given the significant potential for harm, all operators of high-risk AI systems listed in the annex to the proposed regulation should have civil liability insurance. Furthermore, the European Parliament has acknowledged that the deployment of an AI system that operates autonomously and possesses a substantial capacity to cause harm to an individual or a group of individuals constitutes a grave concern. According to the European Parliament, if an individual who utilizes an artificial intelligence system is implicated in a detrimental occurrence, they should be held liable under this Regulation solely if they can be designated as an operator. Nevertheless, the right to initiate liability claims throughout the artificial intelligence system's life cycle should be accorded to the injured party. According to the aforementioned decision, the aforementioned liability is applicable in cases of third-party liability where the artificial intelligence system operates in a public space and, therefore, many persons are at risk. In such a scenario, the European Parliament anticipates that injured parties will frequently lack awareness regarding the operation of the AI system and will not possess a legal or contractual relationship with the operator. In the event of damage, affected persons will be able to bring claims for liability based on fault against the operator of the artificial intelligence system. Thus, the operator's responsibility will be to prove fault (European Parliament, 2020b).

The European Union has recently initiated legislative measures to regulate artificial intelligence. This is evidenced by the Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts (European Commission, Proposals, 2021c). This legislation introduces novel definitions, such as defining an AI system as software developed with one or more of the approaches and techniques listed in Annex I (European Commission, Annexes, 2021a). This software is capable of generating outputs such as content, predictions, recommendations, or decisions that influence the environments with which it interacts, given a set of human-defined objectives. According to the EC and EP proposals, a provider is defined as a natural or legal person, public authority, agency, or other body that develops an AI system or has it developed with the intention of placing it on the market or putting it into

service under its own name or trademark, whether for payment or free of charge. In contrast, the term “user” is defined as a natural or legal person, public authority, agency, or other body that utilizes an AI system under its authority, with the exception of instances where the AI system is employed in the context of personal, non-professional activities. The proposed regulations are designed to encompass workers and those operating through online platforms, as indicated in the Commission’s 2021 Work Program. According to the prevailing academic consensus, the aforementioned individuals should not be classified as users within the context of this Regulation (*European Commission, Proposals, 2021c*).

In general, the proposal is consistent with the aforementioned recommendations of the European Parliament. Primarily, the regulation aims to protect the rights enumerated in the Charter of Fundamental Rights (*Charter of Fundamental Rights of the European Union, 2012*), including the right to human dignity, respect for private life, and protection of personal data. Additionally, it seeks to safeguard the rights of workers to fair and just working conditions and the right to a high level of human health and safety protection. The objective of the initiative is to furnish assistance in governance mechanisms predicated on the principle that artificial intelligence (AI) should be subject to human oversight. However, it should be noted that this pertains exclusively to high-risk AI systems. As articulated in Article 14 of the Proposal, high-risk AI systems are to be designed to incorporate appropriate human-machine interface tools, enabling individuals to effectively oversee them throughout the period of the high-risk AI system’s use. This is intended to prevent or minimize risks to the health and safety of the workforce. Systems of this nature encompass those implemented in the domains of employment, worker management, and access to self-employment, particularly for the recruitment and selection of candidates, the determination of promotions and terminations, and the allocation of tasks, as well as the evaluation of individuals in work-related relationships (*European Commission, Proposals, 2021c*).

The European Parliament and the European Commission have acknowledged specific risks associated with the implementation of AI, particularly in the context of employee reassessment and evaluation. This acknowledgment is driven by concerns over the potential for discriminatory practices arising from the use of AI in such processes. The utilization of AI systems for the purpose of monitoring employee performance and behavior can have a substantial impact on employee data, the right to privacy, and the inviolability of private life. In light of these concerns, EU bodies have proposed the implementation of a principle that high-risk AI systems should be designed to achieve, considering their intended purpose, an appropriate level of accuracy, robustness, and cybersecurity. This proposal is grounded in Article 15 (1) of the Proposal. Furthermore, it is imperative that they consistently adhere to these parameters throughout their lifecycle.

Article 16 of the Proposal delineates the obligations of providers of high-risk AI systems. According to this article, providers must ensure that their high-risk AI systems comply with the pertinent requirements outlined in the Regulation. Furthermore, they are obligated to possess a quality management system that adheres to specific principles described in the Provision. Finally, providers of high-risk AI systems are required to compile technical documentation of the AI system.

It is important to acknowledge that the proposed EU legislation does not directly impose such obligations on the employer. However, it recognizes that the employer may bear identical obligations as a provider in certain scenarios. However, these circumstances would be considered exceptional cases, as outlined in Article 17 of the Proposal. Specifically, the employer is obligated to fulfill these tasks only under the following conditions: first, if they intend to market or place into service a high-risk AI system bearing a trade name or trademark; second, if they

modify the intended purpose of the system; or third, if they make substantial changes to the system. In such cases, the effective responsibilities of the provider are transferred to the employer, who concurrently assumes the roles of user and provider (*Cefaliello and Kullmann, 2022*).

As stipulated in Article 29 (1) of the draft regulation, employers are bound by the stipulated instructions regarding the utilization of AI systems in the context of high-risk systems. In addition, employers are obligated to adhere to Article 29 (4) of the proposed regulation, which stipulates that they must monitor the operation of such systems in accordance with the provided usage instructions. In the event that the user suspects that the utilization of the system, even in accordance with the prescribed guidelines, may result in risks as delineated in Article 65 (1), they are obligated to inform the provider or distributor and cease the use of the system. A comparable informational obligation arises in the event of the discovery of a significant incident or malfunction of the system. According to the EU proposal, employers, in their capacity as users, are obligated to maintain a record of events that are automatically generated by the system.

In addition to the aforementioned obligations, employers are responsible for ensuring safe and healthy working conditions when AI systems are in use. In accordance with Article 29 (2) of the draft regulation, the general obligations arising, inter alia, from Council Directive 89/391/EEC of June 12, 1989, on the introduction of measures to encourage improvements in the safety and health of workers at work (*Council Directive 89/391/EEC, 1989*) remain in force. Consequently, the fundamental obligation stipulated in Article 6 (1) of the aforementioned Directive to implement measures to ensure the safety and health of workers, including the prevention of occupational risks, is equally applicable in the context of addressing risks arising from the integration of AI in the work process.

4. Employers and AI Providers: Navigating Roles and Responsibilities in the AI-Driven Workplace

The proposed legislation within the European Union does not impose restrictions on employers' utilization of occupational health and safety measures. Achieving the stated objective of safeguarding the well-being of workers within the occupational milieu can prove to be a formidable challenge for employers in the context of the emergent risks associated with artificial intelligence. Additionally, the implementation of artificial intelligence necessitates oversight by an individual acting on behalf of the employer. The proposed regulations stipulate that, in order to carry out human oversight of operational intelligence specified by the supplier, the employer may freely use the means to achieve the set goal.

In its report entitled "Work for a Brighter Future," the ILO clearly states that in the future, people should continue to occupy a central place in the work process. The report further states that one element of implementing the strategy should be the recognition of safety and health at work as a fundamental principle and right at work (*ILO, 2019*).

The transfer of responsibility for occupational health and safety from the employer to the employee or to AI is incompatible with the general concept of employee health, according to which the employer is responsible for the health and safety of the working environment (*Liu, 2020*). The prevailing principle asserts that the onus of ensuring occupational health and safety falls upon those entrusted with the management of potential hazards and the capacity to avert or mitigate their consequences. The entity in question is defined as the employer (*Bluff and Gunningham, 2003*).

A rational approach should stipulate that the employer primarily bears recurring responsibility for harm caused to an employee by AI, as well as for occupational health and safety

during its use. According to Article 5(4) of Directive 89/391/EEC, employers may be exonerated from liability for certain incidents if two criteria are met. Firstly, the incident in question must have been caused by extraordinary and unforeseeable circumstances beyond the control of the employer. Secondly, the incident must have occurred due to exceptional reasons that could not have been avoided despite the exercise of due diligence. Nevertheless, the onus falls upon the employer to substantiate the aforementioned circumstances. In accordance with the aforementioned Directive, employers are obligated to respond to specific incidents, implement precautionary measures as appropriate, and implement preventative measures. Consequently, it is incumbent upon employers to mitigate the risks associated with the integration of AI into the work process by adapting the working conditions of employees to the circumstances. As a general rule, the implementation of employee protection measures must align with the level of risk present in the work environment, for which the employer is responsible (*Colosio et al., 2017*).

It is important to note that the European Commission's proposal to regulate artificial intelligence does not directly address the relationship between employer and employee. This may result in a blurring of the issue of responsibility for safety and health in the workplace. The fundamental principle underpinning this framework is that the supplier is held liable, while the employer is only obligated to utilize artificial intelligence in accordance with the stipulated instructions for use. In the proposed EU regulation, it appears to be unreasonable to suggest that only the supplier is liable for artificial intelligence in principle, despite its undeniably important role in ensuring device safety. It is imperative to delineate the employer's role as the primary entity responsible for ensuring safety and health in the workplace, particularly in contexts involving artificial intelligence. The fundamental principle of establishing employer financial liability, encompassing accidents at work, should serve as the foundational framework for further deliberations concerning the role of AI within the work process. The obligation of employers to regulate the payment of compensation for accidents at work, in particular, encourages them to take all possible preventive measures, including seeking ways to address occupational health and safety issues (*Lambert, 2003*).

The European Union (EU) has established comprehensive regulations that govern employers' responsibilities to mitigate potential hazards and establish the requisite organizational framework and measures to safeguard the well-being of their workforce. Directive 89/391/EEC (*Directive 89/391/EEC, 1989*) establishes the general instruments that employers must utilize in response to occupational health and safety risks. These instruments can also be applied in conjunction with the use of AI in the work process. However, it should be noted that these measures are of a general nature. Concurrently, working conditions have undergone substantial changes since the implementation of the aforementioned Directive, and the present challenges associated with the utilization of AI are becoming increasingly pronounced, a phenomenon that is concomitant with the advancement of AI (*Jarota, 2021*). The general obligation to provide information on risks to the safety and health of workers is derived from Article 10 of Directive 89/391/EEC. As delineated in Article 10 of the Directive, employers are obligated to apprise their employees of the potential hazards associated with occupational health and safety. In this context, it is imperative to underscore that this regulation does not absolve employers of the responsibility to apprise their employees of emergent risks. Consequently, the Directive furnishes employees with the necessary tools to enhance their awareness regarding the occupational health and safety risks associated with artificial intelligence. Concurrently, the dissemination of information regarding occupational health and safety hazards to employees should extend beyond the mere indication of the hazard itself. It is imperative to furnish employees with knowledge on how to respond to such hazards effectively.

The potential risks associated with artificial intelligence (AI) in the workplace necessitate a re-evaluation by employers and legislators. First and foremost, particular attention must be directed toward the manner in which artificial intelligence functions on devices, as this phenomenon has the potential to result in employee injury. The challenge, therefore, lies in ensuring that employees are provided with optimal working conditions when collaborating with AI systems. This is necessary to mitigate the pressure employees may experience and to guarantee their right to rest and to engage in cooperative activities with the AI system.

New occupational health and safety risks associated with the use of AI are social, not just individual (*Draper, 1996*), so the correct approach to the use of artificial intelligence is also crucial from the point of view of the healthcare and social security system. The implementation of adequate mechanisms to safeguard the interests of employees engaged in AI-related activities constitutes a specific responsibility incumbent upon public authorities within this domain.

5. Conclusions

This study has examined the complex relationship between the increasing adoption of AI in European workplaces and the corresponding legal safeguards for employee health and safety. The study has revealed that while AI offers transformative potential in enhancing productivity and creating innovative solutions, it simultaneously introduces a spectrum of risks that demand careful regulatory consideration. These risks encompass a range of potential hazards, including physical hazards associated with malfunctioning AI systems, insidious psychological pressures stemming from algorithmic management, and discriminatory practices enabled by data collection.

An examination of the EU regulatory initiatives, particularly the proposed Artificial Intelligence Act, suggests a proactive approach to addressing these challenges. Nevertheless, the study underscores the necessity of ongoing evaluation of the efficacy of these legal frameworks, particularly in the context of the rapid advancements in technology. The necessity of a balanced approach that fosters innovation while robustly protecting the fundamental rights and well-being of workers is underscored by this.

Additionally, this paper underscores the pivotal roles of employers and AI providers in ensuring workplace safety. It is imperative that clear guidelines and ethical obligations be established, necessitating human oversight, transparent communication, and the provision of adequate resources for employees to engage effectively with AI systems. A concerted effort among policymakers, employers, and AI developers is imperative to navigate the intricate landscape of AI and ensure a future where technology serves to augment, rather than compromise, the health and safety of the workforce. Continued research and engagement with these subjects will be crucial as AI technologies become further integrated into the fabric of our working lives.

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TECHNOLOGY, CREATIVITY, IMPLEMENTATION**APPLYING EUROPEAN METHODS OF URBAN TRANSFORMATION
TO REBUILD THE URBAN ENVIRONMENT IN THE POST-WAR ERA****Eduard Shyshkin**

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Summary

Traditional methods of urban planning and design that have developed in Ukraine over the past decades do not sufficiently account for the complexity and dynamism of modern urban systems. At the current stage, it is both relevant and urgent to reorient urban development from a sectoral to a social approach, taking into consideration the needs of the population, the interests of the city, its size, development activity, economic and resource potential, environmental conditions, and local traditions. This article examines the European experience of urban transformation as a basis for the restoration of urban environments after military conflicts and identifies prospects for the development of this field in the context of post-war reconstruction of destroyed urban territories. Examples of urban transformation in various EU cities are presented to illustrate different approaches to urban renewal. The study identifies the interrelation between urban environment transformation and the life cycle phases of cities and urban planning objects, as well as the main factors influencing urban transformation. Specific features of urban development management under contemporary conditions are highlighted. The relationship between residential redevelopment and the life cycle stages of urban and architectural systems is analyzed. The paper also reviews current achievements and formulates key issues concerning the comprehensive reconstruction of residential quarters. Particular attention is devoted to the existing legislative framework and its individual articles that require amendments to address major obstacles currently hindering the implementation of residential reconstruction projects. Recommendations are provided for improving the legislative and regulatory framework to resolve these critical issues.

Key words: comprehensive reconstruction, residential development, obsolete housing stock, urban planning system, planning.

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1. Introduction

The current stage of socio-economic development of cities and regions of Ukraine is characterized by a military-political crisis; a decline in the economic efficiency of economic activities in the key sectors of the economy; and a lack of investment in fixed assets, infrastructure, energy, and urban housing and utilities.

The existing methods of urban planning and development management still insufficiently take into account the profound changes occurring in our society, particularly the real possibilities and structure of investments in the development of cities and urban utility systems. These methods are no longer capable of adequately responding to the rapid shifts in socio-political and economic transformations. Modern conditions and prospects for urban development necessitate a reassessment of priorities and the identification of new directions for further global transformations – fundamental changes in the organization of the urban planning process.

The sustainability of urban development in Ukraine is determined by the potential for qualitative transformation, the implementation of new management methods and mechanisms, and the use of innovative technologies, raw materials, and next-generation materials in improving urban areas. The most problematic factor in urban environment transformation is the lack of effective program-targeted management methods and mechanisms based on rational selection of investment priorities, especially under wartime conditions in certain regions of Ukraine.

2. Theoretical background

The expansion of cities significantly affects urban and rural outskirts, which are the most dynamically. Intensive construction and population growth can be observed in such peripheral zones. According to Gábor László Vasárus (*Vasárus G.L., et al., 2022*) the lack of local spatial planning and land-use management in these areas leads to severe environmental damage during urban sprawl.

Researchers such as Jacqueline Bleicher, Ana Oliveira, and Monica Lavagna (*Bleicher J., Kumar P., 2025; Oliveira A., Lopes A., Soares A., 2022; Lavagna M., et al., 2018*) have raised questions about how urban transformation impacts climate change, the environment, and the design of climate-resilient urban areas capable of addressing climate issues in many countries.

Michelle Leichter and Chiara Piccardo (*Leichter M., Piccardo C., 2024*) use the life cycle assessment approach to address the problem of aging and low efficiency in Europe's building stock after reconstruction. While many authors compare renovation and reconstruction scenarios, most focus primarily on the operational phase and energy use, ignoring other relevant stages and indicators. The authors aim to identify patterns in methodological approaches within comparative studies that assess renovation and reconstruction scenarios or evaluate them separately.

At the Department of Urban Construction and Territorial Planning at O. M. Beketov National University of Urban Economy in Kharkiv, Ukraine, researchers study residential redevelopment as one of the key methods of urban transformation. In 2019, the monograph "Problems and Prospects of Residential Development under Comprehensive Urban Reconstruction" (*Haiko Yu.I., et al., 2019*) was published, addressing the effectiveness of comprehensive reconstruction measures aimed at ensuring suitable living conditions and the proper functioning of urban infrastructure.

3. Purpose of the Research

To analyze the problems of urban environment transformation after military actions and to identify prospects for development in the context of post-war reconstruction of destroyed urban territories. To study European experience in urban transformation for the restoration of urban environments in the post-war period.

4. Directions of urban environment transformation

Traditional urban planning methods developed in Ukraine over the past decades fail to adequately reflect the complexity and dynamism of modern urban systems. In his work (*Pavel S., Jucu I.S., 2020*) Sorin Pavel describes how the small Romanian city of Timisoara was awarded the title of European Capital of Culture in 2021 thanks to continuous urban changes that preserved its cultural heritage. The city's cultural origins strengthened its position among Europe's non-metropolitan cultural centers. Analyzing Timisoara's transformation experience, urban transformation should be viewed through four interrelated subsystems: economic, natural-technogenic, spatial, and socio-demographic. Understanding the structural connections among factors that drive the functioning of the urban system allows identification of those that govern its development and those dependent on them. Economic and spatial factors are largely controllable, whereas natural-technogenic factors tend to impose constraints.

Based on the work of Anna Majewska and Oleksandra Dyda (*Majewska A., et al., 2025*) the main categories of resources and conditions influencing the development of Polish and Ukrainian settlements include: territorial resources, water supply and drainage conditions, ecological state, sanitary and hygienic conditions, transportation connections, labor resources, and energy supply. These parameters determine optimal urban development, management strategies, planning organization, zoning, building density, and methods of comprehensive reconstruction.

Reorienting urban development from a sectoral to a social focus accounting for population needs, city size, development activity, economic capacity, environmental context, and local traditions is an urgent task at the current stage.

Figure 1 below illustrates the relationship between urban environment transformation and the life cycle phases of cities and urban planning objects from a systemic perspective. Recognizing urban structures as complex, evolving systems requires management policies to be based on long-term strategic decisions aligned with program goals and optimal paths toward their achievement.

The strategic goal of post-war urban transformation is to create integrated spatial and material conditions that ensure environmental safety, quality of life (*Iungman T., et al., 2024; Costadone L., Vierikko K., 2023; Ramacher M., et al., 2024*), preservation of cultural heritage (*Hisschemöller M., et al., 2022*), and economic resilience (*Dziecielski M., et al., 2021; Chelleri L., Baravikova A., 2021; Garcia-Ayllon S., 2018*). Planning urban transformation must prioritize human and societal long-term interests. The urgency of transformation arises from social, urban, and economic factors: social – poor housing quality, high maintenance costs, cumulative deterioration; urban – low land-use efficiency amid increasing land shortages; economic – high investment attractiveness of outdated housing areas despite their low market value.

Overall, urban transformation should encompass comprehensive reconstruction, modernization, and improvement of residential areas, aiming to shift from territorial expansion

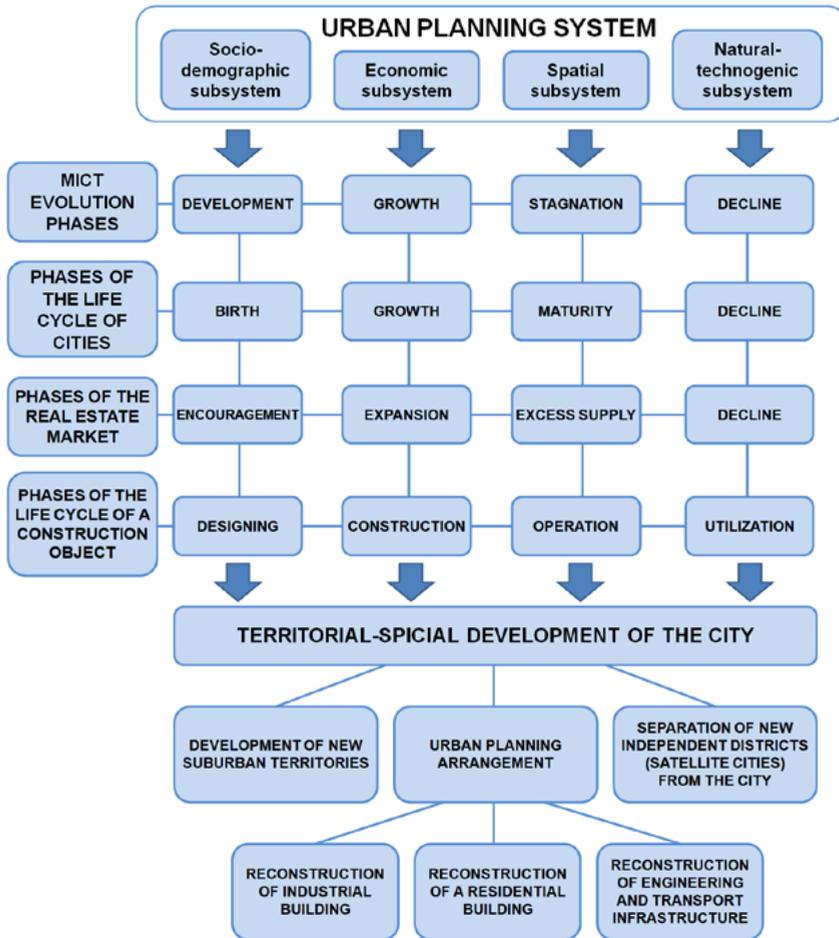


Fig. 1. Relationship between urban environment transformation and phases of the life cycle of the city and urban development objects

toward qualitative redevelopment of existing structures through balanced urban and housing policy solutions.

Following the war, urban transformation in Ukrainian cities will proceed through two main approaches:

- extensive methods – without changing land-use intensity or increasing housing stock;
- intensive methods – through reconstruction and modernization, adding floors or replacing outdated housing with new developments.

The complexity of the investment process lies in attracting multiple stakeholders – state authorities, local governments, banks, developers, real estate managers, and housing owners, who all seek investment returns. In a post-industrial, globally interconnected society, more equitable relationships among all urban actors are essential for an effective and modern urban policy.

5. Comprehensive reconstruction as a key direction of urban environment transformation

In his publication Benedetti A. (*Benedetti A.C., et al., 2025*), explores the issue of sustainable urban regeneration and the reduction of the environmental impact of urban areas. Using the example of the urban periphery of Bologna (Italy), the author compares three scenarios of intervention in an existing high-density urban block – reconstruction, deep reconstruction, and conservation – over three different time periods (10, 30, and 60 years). Applying the life cycle assessment method allows for an evaluation of the environmental impact of building reconstruction in terms of primary energy consumption. Experimental findings indicate that the application of deep reconstruction is not the most economically advantageous in the long-term perspective, whereas standard reconstruction proves to be the most effective approach.

In Ukraine, the issue of comprehensive reconstruction of obsolete housing was first addressed at the national level in 2004–2005. As a result, the Law of Ukraine No. 525-V of December 22, 2006, “On Comprehensive Reconstruction of Quarters (Microdistricts) of Obsolete Housing Stock” was developed and adopted (Law of Ukraine “On Comprehensive Reconstruction of Quarters (Microdistricts) of Outdated Housing Stock” No. 525-V, 2023). The law came into force on January 16, 2007, and remains the principal legislative act governing this area.

According to the provisions of this law, obsolete housing stock is subject to reconstruction within the framework of investment projects implemented in accordance with local comprehensive reconstruction programs. Obsolete housing stock refers to a collection of residential buildings up to five stories high (excluding detached housing) that, due to their technical condition, do not comply with current standards of safe and comfortable living, where the service life has expired or the wear of primary structural elements constitutes at least 60 percent.

The implementation of investment projects for the comprehensive reconstruction of quarters (microdistricts) of obsolete housing stock is carried out under the condition of prior and full compensation to the owners of residential premises for their losses – either by providing alternative housing upon their consent or by financial reimbursement. Owners of non-residential premises are granted, by mutual consent, equivalent non-residential space or financial compensation. Resettlement of tenants of residential (or non-residential) premises is conducted only after they have been provided with equivalent housing in terms of area and number of rooms within the same quarter (microdistrict) undergoing comprehensive reconstruction, in accordance with the legal procedures established by the state.

Certain aspects related to the comprehensive reconstruction of housing are also regulated by other legislative acts of Ukraine, in particular:

- Article 34 of the *Land Code of Ukraine (Law of Ukraine "Land Code of Ukraine" No. 2768-III, 2025)*;
- Articles 33, 34, and 37 of the *Law of Ukraine "On Regulation of Urban Planning Activity" (Law of Ukraine "On Regulation of Urban Planning Activities" No. 3038-VI, 2025)*;
- Article 31 of the *Law of Ukraine "On Local Self-Government in Ukraine" (Law of Ukraine "On Local Self-Government in Ukraine" No. 280/97-VR, 2025)*, among others.

At present, existing legislation requires adjustments aimed at resolving at least three major problems that hinder the implementation of comprehensive reconstruction projects for obsolete housing:

- **Ensuring the possibility of resettlement** based on the consent of the majority of residents. The current version of the *Law of Ukraine "On Comprehensive Reconstruction of Quarters (Microdistricts) of Obsolete Housing Stock" (Law of Ukraine "On Comprehensive*

Reconstruction of Quarters (Microdistricts) of Outdated Housing Stock” No. 525-V, 2023) stipulates resettlement only upon unanimous consent of all owners (or tenants), which practically makes the implementation of investment projects impossible.

– **Legislative consolidation of the rule** that free housing should be provided only to those family members of the owner (or tenant) who were registered and officially listed for housing allocation as of a specific date. (Following the adoption of decisions on comprehensive reconstruction, the number of “registered” family members tends to increase sharply, complicating the compensation process.)

– **Adjustment of the coefficient** by which the area of free replacement housing can be increased for owners (or tenants) not on the housing register (currently set at 1.5). It is advisable to delegate this issue to the local level, allowing municipal authorities to establish differentiated coefficients depending on the specific characteristics of the locality and the investment project.

The problem reached an impasse after the adoption of the Law of Ukraine “On the Peculiarities of the Exercise of Ownership Rights in Multi-Apartment Buildings” (*Law of Ukraine “On the Peculiarities of Exercising Ownership Rights in an Apartment Building” No. 417-VIII, 2023*). On one hand, this law assigns full responsibility for maintenance, repair, and reconstruction of apartment buildings to the owners of residential and non-residential premises. On the other hand, it declares that the land plot and the adjacent territory constitute the joint property of these co-owners. This creates a legal paradox: can an investment project for comprehensive reconstruction of a quarter be implemented if, even after the demolition (or destruction) of a multi-apartment building, the property rights to the land plot and the related facilities remain with its former co-owners? How does this correlate with the mechanisms of comprehensive reconstruction defined by the corresponding law? At present, no clear legal solutions exist to these issues.

According to the latest version of the General Plan of Kyiv (as of 2020), obsolete five-story residential buildings accounted for 3,055 structures, including 757 panel buildings with a total area of 2.6 million square meters (*General Plan of Kyiv, 2020, kyiv-landuse.com*). In addition, as of August 1, 2025, another 2,134 multi-apartment buildings suffered damage as a result of military operations since the beginning of the war (*www.rbc.ua, 2025*).

The Draft General Plan of Kyiv until 2025 envisaged the reconstruction of residential quarters and microdistricts built with panel five-story houses of the first mass series, as well as three- to four-story buildings constructed in the late 1950s and 1960s. According to the calculations of the authors of the General Plan, the implementation of the reconstruction program would remove approximately 2.8 million square meters of obsolete housing from operation (not including war-damaged buildings). To replace these, it would be necessary to construct at least 7.8 million square meters of new housing (*General Plan of Kyiv, 2020, kyiv-landuse.com*).

Unfortunately, military actions on the territory of Ukraine, uncertainty regarding the total number of buildings subject to reconstruction, and the lack of financing have led to a situation where, as of the end of 2025, a new General Plan of Kyiv until 2040 had been drafted but not yet approved. This new plan envisions the transformation of the urban environment as a key component of the sustainable development of the largest city in the country.

6. Conclusions

All of the above indicates the necessity for further improvement of the legal and regulatory framework in the field of urban environment transformation.

This will facilitate mutual understanding and coordination among executive authorities, investors, developers, and experts during the implementation of projects.

Urban environment transformation management is a process aimed at optimizing the development of a complex socio-demographic, economic, spatial, environmental, and cultural system. A city, as an object of management, is continuously influenced by diverse and multidirectional forces. Therefore, decision-makers face the challenging task of defining the structure of management objectives and boundary conditions under increasing resource constraints.

The strategy of urban environment transformation must be differentiated depending on the time period and the type of urban development object.

The transformation approach should be based not on individual buildings, but on their integrated complexes – blocks or microdistricts. This will enable a comprehensive assessment of urban planning problems and the adoption of rational decisions that correspond to contemporary requirements and ensure the continuity between different architectural periods.

Therefore, subject of management face the challenging task of defining the structure of management objectives and boundary conditions under increasing resource constraints.

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FEATURES OF BUILDING IN KYIV AT THE END OF THE 19TH – EARLY 20TH CENTURIES

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Summary

The historical, topographic and stylistic features of the architecture of Kyiv in the late 19th and early 20th centuries are considered, and the role of the architectural and decorative plasticity of facades in the formation of the architectural image of the city is revealed. The main principles of the classification of facades are determined and the compositional solutions of the facades of buildings of the late 19th and early 20th centuries in the city of Kyiv are classified. One of the main features of the development of Kyiv is its connection with the relief. The topographic basis is reflected in the planning and in the methods of building the historical central districts. Accent buildings are located on high points of the relief, on squares, on street corners or separately or with an indentation from the red building line. The functional, compositional and stylistic structure of the building is revealed, which is necessary for a correct understanding of its role in the formation of the image of the city. At that time, Kyiv was characterized by a perimeter character and high density of building. The size, the architectural solution and the length of the building were dictated by the size and the length of the land plot and the wealth of the owner.

In the development of Kyiv in the late 19th and early 20th centuries, multi-storey “profitable houses” played a significant role. They are now receiving a new status of architectural monuments, which, according to the law on cultural heritage, must be protected and used wisely.

As a result of the study, based on the vertical divisions of facades (conditional axes), a classification of compositional solutions for facades was developed, which can be used in the reconstruction of Kyiv, in particular if new inclusions in the historical building are necessary.

Key words: architecture, facades, compositional construction, image of the city.

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1. Introduction

The destruction associated with Russian aggression, the rapid pace of reconstruction and development of the historical center of Kyiv lead to the destruction of the unique architectural fabric of the city. This is especially true to the buildings of the late 19th – early 20th centuries, which form the main framework of the central streets and squares, and individual buildings of which are often important architectural accents of the urban environment. The relevance of this study is due to the fact that the buildings of this period have interesting compositional solutions, valuable unique and typical details and elements for that time, which are often not taken into account in preserving the architectural and artistic image of the city. Hence, as a result, there is a large percentage of wear and tear of ordinary residential buildings of this period, significant distortions during repairs, which leads to a violation of the harmony of the architectural and artistic image of the city, the destruction of its originality.

The scientific novelty and practical value of this study lies in the analysis of the buildings of the late 19th – early 20th centuries, the identification of their features and the

first classification of the compositional solutions of the facades of the buildings of that period, which will allow optimizing reconstruction, stopping the process of destruction of individual buildings and gradually and methodically carrying out their preservation and restoration. Recommendations have been developed for architects in case of need to design new buildings in a historical environment.

The purpose of the study is to identify the features of the development of the late 19th – early 20th centuries, determine the principles of its classification, conduct a classification of compositional solutions of facades, and develop recommendations for architects in case of the need for new inclusions in the historical fabric of the city.

The main objectives of the study: identifying the features of the development of the late 19th – early 20th centuries; identifying important architectural accents of the historical environment; developing principles for classifying development and classifying compositional solutions of facades; developing recommendations for designing new buildings in the historical development of Kyiv based on the identified typical compositional solutions of facades

When developing the methodology of this study, previous developments of domestic and foreign authors were taken into account. Their works, in particular, the publications of Vodzynsky E. (*Vodzynsky, 2010*), Kalnytsky M.B. (*Kalnytsky, 1999*), Malakov D.V. (*Malakov, 2002*), Sidorova O.I. (*Sidorova, 2008, 2014*), Skibitska T.V. (*Skibitska, 1997*), Chepe-lyk V.V. (*Chepe-lyk, 2000, 2013*), Yasievich V.E. (*Yasievich, 2000*) became the basis for solving the tasks of identifying and preserving valuable architectural buildings in the structure of the city. At the first stage of the study, thanks to empirical and theoretical methods, materials were collected, literary sources were analyzed, and historical and topographic features of the formation of architecture of the late 19th – early 20th centuries were analyzed in Kyiv and urban planning practice. At the second stage, field surveys were conducted: photo fixation, measurements, graphic sketches and a description of the architectural plasticity of the building facades. At the third stage, a classification of compositional solutions for facades was developed. At the fourth stage, recommendations were created for designers in case of need for new inclusions in the historical building.

2. Topolandscape and urban development features

The historical part of Kyiv is located on the right bank of the Dnieper, on a territory divided by deep ravines and valleys of small rivers into separate heights – mountains that divide the city into several parts. The Upper City is located on Kyivska Gora. Between the Khreshchaty Valley and the Dnieper and Lybid rivers is Pechersk. The territory with low relief between the Upper City and the Dnieper River is occupied by Podil. For a long time these areas existed independently and only in the middle of the 19th century were united into a single city.

A characteristic feature of Kyiv's architecture is its connection with the topographic basis and the natural environment. The topographic basis was reflected in the planning principles and in the methods of building the central historical districts – the division into the Upper City, which included the ancient historical part of the city – the territory of the city of Prince Volodymyr, the city of Yaroslav the Wise and Iziaslav-Sviatopolk, and the lower city – Podil; and the placement of accent buildings on high points of the relief. Andrew's Church dominates the area of Volodymyrska and Desiatynna streets of the Upper Town. It is also the main dominant of Podil. The ensemble of the St. Michael's Golden-Domed Monastery dominates the slopes of Volodymyrska Hill, Triohsviatytska Street. The ensemble of the St. Sophia Monastery dominates the Upper Town from the side of Khreshchatyk, Independence Square, Horodetskoho Street.

The structure of the Upper Town (within the streets of Yaroslaviv Val, Lvivska Square, V. Zhytomyrska, Desiatynna, Kostelna, Prorizna) is a unique synthesis of building elements of the 10th – 11th centuries, free-configuration blocks and elements with a regular planning structure. The planning system of the district is built on intersecting axes directed along the oldest streets – Volodymyrska and V.Zhytomyrska, and represents the unity of the landscape environment and, in fact, the development. On both sides of Volodymyrska Street there are two radial systems of streets, which converge on one side to Independence Square and on the other side to Lviv Square.

The beginning of the settlement of the most ancient Kyiv lands dates back to the end of the 5th – beginning of the 6th century (the time of the emergence of the city of Kyi). The beginning of the formation of Kyiv architecture, which has partially reached us with a number of subsequent layers of subsequent eras, dates back to the 10th – 13th centuries. of the Kyivan Rus'. Certain features of the architecture of this period have been preserved in a modified form in such buildings as the St.Sophia's Cathedral (1037), the Church of the Savior on Berestov (10th – 11th centuries), the St. Michael's Church of the Vydbetsky Monastery (1070 – 1088), the Trinity Gate Church of the Kyiv-Pechersk Lavra (1108) and others.

After 1654, the Upper Town and Pechersk were strengthened, new fortifications were built on the old ramparts, and the development of Reitarska and Striletska streets was formed.

The dominant style of the 17th – 18th centuries. becomes baroque, which is reflected in all the notable ensembles of the city (the ensemble of the St.Sophia's Monastery, the Kiev-Pechersk Lavra, the St. Andrew's Church, the Mariinsky Palace).

The city has preserved some monuments of classicism, which in turn became the centers of ensembles – the main building of the University of Kyiv (1837 – 1842, architect V. Beretti), the building of the former present places (1854, architects I. Ikonnikov, I. Shtrom, K. Skarzshinsky). Features of classicism were preserved in the planning structure of Podol (1812, architect V. Geste). In the 19th century it was allowed to build in the city center only according to “model” projects, provided by only three types of private residential buildings, which differed only in the length of the facade along the street: from 11 to 32 m. One-story houses with 3 and 5–7 windows on the facade were built. The projects of “model” residential buildings were developed in 1809–1812 by architects V. Stasov, A. Ruska, V. Geste. In the 30s-50s of the 19th century the newly formed streets of the Starokyivskyi district and Podil were built up according to “model projects” in the classicism style. The areas of the old ramparts were built up mainly in the 50s. Drawings of some “model houses”, stored in the Regional Archive, were intended for residents of the Bulvarno–Kudriavska street. All of them were noticed in 1854–1855 (materials of the KMOA archive, 1542, 1–615).

In the Starokyiv district, the ancient ramparts were dug up from 1832–1855. At that time deep ravines began to fill in, and in their place appeared the streets of Oles Honchar, Bulvarno–Kudriavska, Ivan Franko, Yaroslaviv val.

In the second half of the 19th century, Kyiv had typical features of all capitalist cities of that time: the contrast between the presentable center, where the wealthy classes of the population lived (Starokyivskyi, Pecherskyi, partly Lybidskyi districts) and the unrepresentable outskirts (Shuliavka, Lukianivka and others). At that time, the development of Kyiv was characterized by a certain chaos and spontaneity, a perimeter character and high density of development. The size, character, and length of the building was dictated by the size and length of the land plot and the wealth of the owner.

At that time, a large number of new presentable streets were formed in the Lypki district of Kyiv: Mykolaivska, Olhinska, Merengivska, now Gorodetskoho and Zankovetska.

The development of the city went mainly to the west along the modern Beresteyskoho Avenue, the railway station area, Shuliavka, Demiiivka, Solomianka, Kurenivka were being built.

The second stage of intensive construction began in Kyiv in 1907 and ended in 1912. During those five years, 1901 houses were built in the city ("Kievljanin", newspaper No. 65, 1913). The houses at this time were mainly three – four-story, but there were also five – six-story buildings equipped with elevators and steam heating.

The construction of Olesya Honchara Street (former Malovolodymyrska) began in the 60s of the 19th century with one-two-story wooden houses. Intensive construction of stone houses began in the 90s of the 19th century. Those were houses in estates No. 3,4,9 – 4-story house, No. 16 – 4-story house, No. 34 and 39 – 2-story houses. Construction of multi-story houses began at the beginning of the 20th century. Those were houses in estates No. 2, 15, 23, 32, 33 and others. Bulvarno-Kudriavska Street began to be built up in the 50s of the 19th century with wooden one-story houses up to Lviv Square.

In the 70s of the 19th century. the city begins to sell land plots for money from auctions. It was the land of the ravines and it was not very expensive, namely 1r.62 kopecks per square sazhen (Kyiv State Administration of Ukraine (KSCA) archive, FUND 163 –7, 26)

Until the 1930s and 1990s, the street was mainly built up with wooden houses.

The development of the territories in the late 19th and early 20th centuries took place in stages. The multi-storey buildings built at this time grew into the structure of low-rise (1–2 floors) buildings of earlier periods, that is why significant height differences arose. The dominant style of historicism at that time coexisted with the “typical” classicist buildings of the early 19th century. The complex mountainous terrain of Kyiv, deep ravines where land was cheap, and the ramparts of the Upper City determined the development of this area until the 1990s with low-rise buildings.

3. Architectural, planning and compositional features of the development

The architectural and urban planning accents of Kyiv's development of the historical central districts that were built up at that time were: the Art, Industry and Science Museum (1897–1900, architects V.V. Gorodetsky, G.P. Boytsov, sculptor E. Salia, now the State Museum of Ukrainian Art on M. Hrushevsky Street); banks on 9 Instytutska Street (1905–1909, architects O.V. Kobelev and O.M. Verbytsky) and on Khreshchatyk; the Opera and Ballet Theater (1899–1901, architect V.O. Shreter); St. Nicholas Church on 75 Velyka Vasylkivska Street (1899–1909, architect V.V. Gorodetsky). Interesting magnets that attract tourists and art lovers are the mansions at 33 Olesia Honchara, (architect I.K. Ledohovsky), at 23 Liuteranska (architect E.P. Bradtman), at 19 Shovkovychna (architect M.O. Vishnevsky), at 23 Veluka Zhytomyrska (probably I.K. Ledohovsky) and the especially famous house with chimeras at 10 Bankova (architect V.V. Gorodetsky) and some others. Those buildings largely determined new ideas about the architecture of Kyiv at the beginning of the 20th century.

For a correct understanding of the role and features of historical buildings, it is important to identify its functional, compositional and stylistic structure. Architectural and decorative plastic, due to its mobility, more than anything else, is a carrier of style attribution, it expresses the mood, emotions and associative ideas of the architect and the customer of the architectural form. All this determined, on the one hand, a certain randomness of forms, and on the other hand, a certain conditionality, consistency and logic, which are associated with folk traditions, mythology, semantics and the placement of certain sculptural, architectural and decorative elements on the facade in clearly defined places. All this constitutes a certain “unity of diversity” of Kyiv's buildings of the late 19th – early 20th centuries.

Buildings built in different styles often have a common compositional structure of facades. And the composition of facades, in turn, depends on the planning structure of the building, which is reflected in the vertical divisions of the facades and, in turn, depends on: functional purpose, place in the building and nature, length and shape of the land plot.

In the development of Kyiv in the late 19th and early 20th centuries, multi-story “profitable houses” played a significant role. These oldest representatives of the housing stock successfully fulfilled their purpose for 100 years and are now receiving a new status of architectural monuments, which, according to the law, must be protected and used wisely.

Conducted by the Kyiv National Research Institute of Architecture in 1976-1980, and later by the National Research Institute of Architecture and Design in Ukraine in the late 19th – early 20th centuries, the research was transferred to designers who were engaged in the reconstruction and repair of the old housing stock. Those studies included the typology of the layout of apartment buildings, means of their preservation and use.

But the study of the architectural plasticity of facades, their classification, typology, value and significance in the surrounding development was not conducted. That is, these studies are focused on the stage of identifying architectural monuments and are still not completed, many buildings are still waiting for their registration and granting the status of architectural or historical monuments.

The type of multi-storey apartment building began to take shape in Kyiv in the 70s of the 19th century. Initially, these houses had an individual layout and minimal equipment (stove heating). A typical example of one of the first multi-storey apartment buildings is the building on Shevchenko Boulevard (1873-1875, architect V.M. Nikolaiev). The first floor of this building had built-in shops, the second and the third – large apartments. The fourth floor contained cheap small apartments, which opened into a long corridor.

After the launch of the city water supply (1872) and especially the sewage system (1895), technical conditions for the construction of multi-storey residential buildings arose. Multi-storey buildings became one of the most typical forms of urban housing. The main function of such buildings for the customer was to obtain maximum profit from the land plot. Land prices in the city center were growing rapidly, which led to an increase in the number of storeys in buildings from 3–4 floors at the end of the 19th century to 5–6 floors at the beginning of the 20th century. New engineering equipment (water supply, sewage, elevator, electric lighting, centralized heating) gradually turned the apartment building into a complex engineering object that required large costs. For example, the 8-10-storey Ginzburg building in Kyiv (1910-1914) cost 1.5 million rubles, that is, the same as the opera house in Odessa. The construction of large apartment buildings in Kyiv grew rapidly during the first decade of the 20th century, so (based on directories and publications in newspapers of that time) in 1901 only 3 five-story buildings were built in Kyiv, and in 1911 there were already 45 buildings, in addition, at that time 25 six-story buildings and 5 seven-story buildings began to be built, which were erected in modern streets: Horodetskoho, V. Zhytomyrska, Antonovycha, Chykalenko, Saksaganskoho and others.

Based on the research of V.E. Yasyevych (*Yasyevych, 2000*), typical planning techniques for multi-story residential buildings of the early 20th century were identified.

The increase in the number of floors and the development of engineering equipment (water supply, sewage, elevator) necessitated the need to organize the functional structure of the building vertically and replace individual planning with sectional planning.

Single-section residential buildings had a compact layout and corridor. The type of compact single-section house became most widespread in Kyiv at the beginning of the century. It required a small plot and was economical in conditions of small plot width. Sometimes such

houses were paired with each other. The section plan determined the location of the main and back stairs: paired in one stairwell, or separately. The utility rooms of the apartment (kitchen, bathroom), as well as bedrooms, were usually grouped around the back (utility) stairs with access to the yard. And the main rooms (living room, study) were along the main facade. This differentiation allowed the apartment to be divided into two main functional zones – common and individual.

Gradually, single-section houses were complicated by two- and four-apartment sections. In the 19th century, a kitchen block with a black staircase was located inside the house. At the beginning of the 20th century, that block was taken outside into an independent volume, which gradually developed into an apartment. This made it possible to better design the entrance to the house and use the facade of the house to accommodate large rooms. Examples of this type of residential buildings are the following: 7 Kruglouniversytetska (1910, architect M.O. Damilovsky), 20 Bogomolets (1914, architect P.F. Alioshin), 101 and 103 Saksaganskoho and others. This type of house is the most common in Kyiv and was recommended by the National Institute of Industrial and Technological Research in the 1980s for reconstruction with a modern set of apartments.

The next type of single-section house has a layout based on three staircases (front, two service). This type allowed to go from a two-apartment section to four and six-apartment. Examples of such houses in Kyiv are at 23 Yevhena Chykalenko (1910), 74 Olesia Honchara (1911, architect P.F. Alyoshin).

The third type of single-section houses, which are quite few, was a single-section house with a corridor system with a single-apartment section. The area of the apartments in such houses was 190 -280 sq.m. The stairs in them were located at the ends, which allowed to increase the area of the rooms that overlooked the main facade and to place the kitchens in the depths of the apartments. Examples of such houses in 16 Hrushevskoho street, 17 Chykalenko.

Multi-section apartment buildings had different combinations of sections – elongated along the street, corner and houses of complex configuration with closed courtyards, T-shaped, U-shaped. The houses of the first type often have two-apartment sections with stairs located on the same axis or shifted, they are quite rare, 14 Velyka Vasylkivska (1910–1911, architect P. Svatkovsky).

An example of the second type (corner solution) is the house in Pavla Skoropadskoho (formerly Tolstoho) Street (1910–1912, architects I. Zektser, L. Torov), it has a complex configuration and plasticity of volumes. Corner solutions were used to create architectural and urban accents, were often crowned with a tower, had a corner bay window, a high richly decorated attic.

The third type is multi-section houses of complex configuration with closed courtyards. Such houses usually had problems with insolation of apartments. Examples are the house in 21 Ye. Chykalenko St., 13 Repina St., 26 V. Vasylkivska St. In such houses there was a sharp contrast in the level of amenities, especially noticeable in the apartments that opened onto the courtyards.

Internal – closed courtyards were a significant drawback of the building, they created unsanitary living conditions and, since these apartments lacked a sufficient level of insolation. This problem was solved by multi-section houses of a p-shaped shape with kurdoners. An example of such a house is the so-called "House of Ginzburg" (1910–1914, architects F. Troupiansky, A. Minkus), as well as the house in 10 B. Khmelnytskyi (1910-th years).

The building's planning structure was partially read in the vertical divisions on its facade.

Before analyzing the compositional structure of building facades, it is necessary to classify buildings at the urban planning level, that is, to distinguish groups of buildings by location

in the development, since the conditions of their perception leave a certain imprint on the compositional solution of the facades.

Multi-storey construction (from 3 to 6 floors) is found mainly in the central districts of Kyiv in the streets of Horodetskoho, B. Khmelnytskyi, V. Zhytomyrskaya, Shota Rustaveli, Saksaganskoho, Velyka Vasylkivska, Shevchenko, Reitarska, Vorovsky, Honchar, etc., low-rise (1-2 floors) construction determined the appearance of the urban outskirts of Solomianka, Shuliavka, Podil, etc.

The location of the building in the development determines the possibility of its inspection, depending on this, the composition can be spatial or frontal.

In addition, determining the location of a building in a development allows us to analyze the perception of each individual building in relation to its surroundings, determines the choice of architectural means that determine the nature of the facade composition (contrast or nuance, dynamics or statics, etc.), which allows us to identify accent and background buildings. Let us highlight a number of main groups of building facades by the location of the building in the development.:

1. Ordinary:

a) ordinary in the building system, which do not have a significant viewing sector in front of them;

b) ordinary, which have a significant viewing sector in front of them, which complete the perspective of the streets, have retreated from the red line, are located at the turn of the street or in the square.

2. Corner.

3. Separately located and estates.

In terms of their artistic and emotional significance in relation to the surrounding buildings, building facades can be accent (contrast) and background (nuanced). The most significant in the urban planning plan are corner (angular), separately located and ordinary buildings, which have a significant viewing sector in front of them, that is, they are final for the perspective of the streets, located on a corner or on a square. In addition, among ordinary buildings, those that recede from the red line along their entire length or partially stand out. Such buildings are perceived locally, the gaze stops and is held on them in the process of perceiving the building as a whole.

Buildings that are perceived in a staggered manner, in the process of moving along the streets, when the gaze floats along the building, grabbing only individual architectural details, fixing the rhythm of vertical divisions – bay windows, rhyolites, do not have such urban planning significance. These are ordinary buildings that do not have a significant viewing sector in front of them and are located on the red line. But, undoubtedly, the rhythm of the vertical divisions of these buildings is of great importance when perceiving a building. As a rule, buildings that stand out in the urban planning situation are designed in contrast to the surrounding buildings, with bright means of architectural expressiveness, which makes them emotionally significant.

Separately located buildings in 15 Andriyivskyi Uzviz, 10 Bankivska have a complex extraordinary silhouette, they are easily remembered and have long become emotionally important architectural accents that determine the originality of Kyiv, a kind of visiting card of the city. These buildings organize the silhouette of the development, being located on the hills, they dominate the surroundings and are well perceived from most of the streets located in the lower part of the relief.

The first building is designed in the Romanesque style with a high spire-like tower, the second is made in the forms of Art Nouveau. Both buildings have a spatial composition, which

consists of increasing volumes and is due to their location in the environment, on a relief with several viewing points. The spatiality of the composition is most clearly expressed in the building in 10 Bankivska street – a house with chimeras (architect V. Gorodetskyi), where the composition of the building is based on a spiral – a gradual expansion of volumes.

The group of separately located buildings and mansions in Kyiv also includes a number of original houses in 1 Yaroslaviv Val St., 27 Vorovskogo St. (architect B.I. Sychugov), 12 Sre-tenska St., 23 Liuteranska St., 23 Gogolivska St. (architect V.A. Bezsmertnyi), and some others.

These buildings have completely or partially deviated from the red line, they are located at a distance from the row of buildings and differ from ordinary buildings in a special dynamism (*Lutheranska*, 23) or the balance of parts of the facade, careful development of details, sculpturality and elegance of forms (32 Velyka Zhytomyrska), or a picturesque asymmetrical composition with an accent shifted relative to the central axis of the facade – a high spire-like tower in the building at 23 Gogolivska St., 27 Bulvarno–Kudryavska Blvd.

Ordinary buildings that have a significant viewing sector in front of them, for example, 4 Muzeyny prov. (modern, architect Y.I. Rykov), 16 Hrushevskogo, as well as buildings located on the square, such as 45 Chikalenko (Russian style, architect M.G. Artinov) or on the corner or turn of streets – 23 Shota Rustaveli (late modern), 14 Yaroslaviv Val (modern, architect M.V. Klug) are also designed in contrast to the surrounding buildings and are important architectural accents. Most of them are made in modern forms and thanks to one style alone they differ from the surrounding historicist buildings. That is, in relation to ordinary buildings they are designed in contrast, have a distinct silhouette, and different proportions. The facades of these buildings are saturated with finely crafted details or have an extraordinary finish, an originally designed tower – a dominant, which is an important architectural and urban planning accent, as, for example, in the building in 45 Chykalenko Street.

From the point of view of emotional and aesthetic impact, it is necessary to consider a number of urban planning important corner (angular) buildings, such as 26/26 Saksaganskoho (modern), 108 Saksaganskoho (architect A.R. Khaynatsky, historicism with elements of neo-classicism and with a large number of sculptures), 20/24 Reitarska (architect A.M. Verbytsky, modern with a corner tower), 40 Artema (architect V.A. Bezsmertny, modern, with a high corner cone-shaped tower), etc. These buildings, mostly all built according to the designs of famous architects, are often made in the forms of modernism, saturated with elegant sculptural reliefs, they differ from the surroundings in mass, proportions or compositional structure, or have high expressive towers that contrast with the surroundings. All corner buildings, as a rule, are emotionally significant and are not only urban planning, but also architectural and artistic accents. The same can be said about some ordinary buildings that have deviated from the red line in whole or in part – 32 V. Zhytomyrska (modernism with exquisite stucco details of the bay window, characteristic smooth lines of the decor of the entire facade).

However, even ordinary buildings in the building system, whose unusualness is supposedly not based on anything, can be accentual, contrasting and emotionally significant. Indeed, the owner of the house, who purchased the plot, simply ordered a project for the future house from an outstanding architect, and regardless of the location of the plot, the building became an extraordinary phenomenon only thanks to the extraordinary abilities of the architect. For example, the house at 19 Shovkovychna Street (architect Vyshnevsky, neo-Gothic) or the famous house with cats, 23 Gogolivska Street (architect V.A. Bezsmertny, modern), or 19 and 21 Nazarivska (architect I.K. Ledohovsky, modern), or 7 Kostyolna (modern, the house has an original system of compositional construction, decorated with extraordinary sculptures). Although the houses in 19 and 21 Nazarivska Street were probably visible from the current Petliura Street

when there were no trees, and the facade of the house in 7 Kostyolnaya Street was open to view from the former Duma Square, at a time when the modern building of the House of Trade Unions did not yet exist.

These buildings can be considered environmental landmarks in terms of their emotional and architectural significance. However, the facades of buildings that are environmental landmarks can be designed according to certain typological compositional schemes that are often found in development. Such buildings are architectural accents only due to original details (106 Saksaganskoho, 96 Saksaganskoho, 41 Chikalenko, etc.).

The division of building facades into groups by location in the development is of great importance when analyzing the compositional structure of facades, since the position in the building – ordinary, corner (angular) or separately located – affects the placement of the main compositional axes of the building.

The composition of separately located houses and mansions is usually spatial, designed for viewing from different points of view, corner ones – partially spatial, designed for viewing two facades with a volumetric dominant at the corner. The corner of the house in corner buildings is always a compositional axis. Since mansions in most cases in Kyiv development are included in the front of ordinary buildings and are often located on the red line, the types of their compositional solutions are often identical to the compositional solutions of low-rise ordinary buildings. In the classification of compositional solutions of facades of residential buildings of historical buildings in Kyiv, the vertical-belt principle of composition construction is of decisive importance, that is, the division of the facade by vertical elements – risalits, stairwells, bay windows. Structurally important vertical divisions, as a rule, are highlighted by architectural and artistic means and are the compositional axes of facades. Vertical divisions in the form of risalits, bay windows, stairwells have developed sculptural endings or are highlighted by the shape and size of windows. These vertical divisions, conventionally called axes, can have subordinate or balancing vertical divisions. The main vertical divisions can consist of one, two, three and four (in Kyiv buildings) vertical elements. The type of composition of the facade depends on the length of the building plot.

In the historical buildings of Kyiv, four main types of compositional solutions of facades have been identified: uniaxial, biaxial, triaxial and multiaxial (Fig. 1).

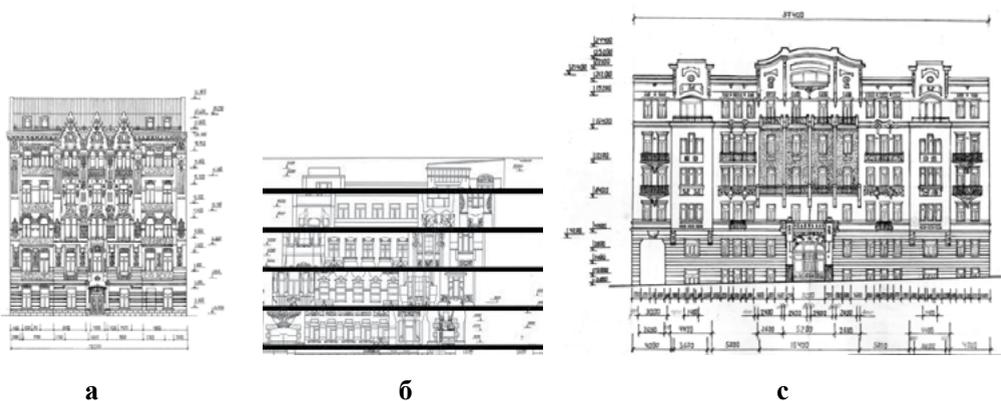


Fig. 1. Types of compositional solutions of facades:
a) uniaxial composition of the facade, Shota Rustaveli, 9; b) biaxial composition of the facade, Velyka Zhytomyr'ska, 32; c) triaxial composition of the facade, Chykalenko, 21.
 Measurements and drawings by Sidorova M.-J. A.

With a facade length L up to 25 m. a single-axis type of composition was chosen (Khoryva, 45/24 (24 m.); Saksaganskoho, 99 (17 m.); Shota Rustaveli, 9 (19 m)).

With a facade length L from 26 to 35 m. a two-axis type of composition was used (V. Zhytomyrska, 32 (26 m), Gogolivska, 23 (26 m)).

With a facade length from 35 to 46 m. a three-axis type of composition was chosen (Chykalenko, 33 (35 m), Zankovetska, 7 (46 m), Chykalenko, 21 (37 m), Lyuteranska, 6 (45 m)). This type of composition is most common in the development of Kyiv.

If the length of the facade is more than 46 m – a multi-axis type of composition was used. In Kyiv development, this type is rarely found.

The classification of compositional solutions of facades developed by us can be used in the reconstruction of the historical center of Kyiv. If new inclusions in the historical building are necessary, it is necessary to conduct a historical and architectural study of the surrounding building, get acquainted with the style of neighboring buildings, determine their characteristic elements, take into account recommendations regarding the protection zones of architectural monuments, number of floors, style and scale of the building. Depending on the length of the plot for construction, it is recommended to choose the type of compositional solution corresponding to these dimensions – single-axis, double-axis or triple-axis composition of the facade (Fig. 2). Figure 2 shows an example of the author's schematic models of modular facades of new buildings for inclusion in the historical environment, which are presented in the sweeps of Andriyivskiy Uzviz, Saksaganskoho, Dmytrivska streets.



Fig. 2. Using different types of schematic models of the structural solution of facades in historical buildings (developed by Sidorova M.-J. A.)

4. Conclusions

The development of Kyiv is organically connected with the relief of the city. The topographic basis is reflected in the planning and in the methods of development of the historical central districts. Accent buildings are located on high points of the relief, on squares, on street corners or separately or with an indentation from the red line of development.

The development of the late 19th – early 20th centuries had a clearly expressed frontality (facade) due to its perimeter and density.

Buildings that are separately located in the development, corner, located on the corner of streets, as well as buildings located with an indentation from the red line of development are usually important architectural accents and urban planning landmarks.

Separately located buildings, located on hills, have a complex extraordinary silhouette, they are easily remembered and have become a kind of visiting card of Kyiv. These buildings organize the silhouette of the development and dominate the surroundings.

Corner buildings, usually built according to the designs of famous architects, are often made in modernist forms, saturated with elegant sculptural reliefs. They differ from the surroundings in mass, proportions or compositional structure, or have high expressive towers that contrast with the surroundings. That is, all corner buildings, as a rule, are emotionally significant and are urban planning and architectural and artistic landmarks.

Buildings that are completely or partially set back from the red line, are located with a separation from neighboring buildings, are designed in contrast to the surrounding buildings, differ from ordinary buildings in a special dynamism or balance of parts of the facade, careful development of details, sculpturality and elegance of forms, or a picturesque asymmetrical composition with a high spire-like tower. They are also important architectural accents and landmarks.

The division of building facades into groups by location in the development is of great importance when analyzing the compositional structure of facades, after the position in the development (row, corner (angular) or face-to-face) is of no greater importance than the building in the urban environment, but also affects the placement of the main compositional axes of the building.

Buildings built in different styles often have a common compositional structure of facades. The composition of facades depends on the planned structure of the building, which is reflected in the vertical facade divisions, on the functional purpose, as well as on the locations in the development and the nature, length and shape of the land plot.

In the classification of compositional solutions of facades of residential buildings of historical development in Kyiv, the division of the facade by vertical elements – risalits, stairwells, bay windows is of decisive importance. Structurally important vertical divisions, as a rule, are decorated with architectural and artistic means and are their own compositional axes of facades. Vertical elements in the form of risalits, bay windows, stairwells have developed sculptural endings or removals in the shape and size of windows.

In some historical buildings of Kyiv, four main types of compositional solutions of facades are distinguished: uniaxial, biaxial, triaxial and multiaxial. With a facade length L up to 25 m. a uniaxial type of composition was chosen. With a facade length L from 26 to 35 m. a biaxial type was used. With a facade length from 35 to 45 m. a triaxial type was chosen. This type of composition is most common in Kyiv buildings. If the facade length is more than 45 m – a multiaxial type of composition was used.

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