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DIGITALIZATION OF PHILOLOGICAL EDUCATION IN UKRAINE: OPPORTUNITIES AND PERSPECTIVES

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Abstract. The paper analyses the opportunities and perspectives of Ukrainian philological education digitalization. The development of philological education in Ukraine in the context of digitalization requires new approaches and tools for teaching and learning language, literature, and culture. Digitalization makes it possible to expand access to knowledge and information, promotes creativity and improves learning efficiency. A thorough analysis of the benefits and drawbacks of Ukrainian philological education digitalization has been carried out. It is concluded that the implementation of digitalization in philology education in Ukraine has the potential to transform teaching and learning, contributing to a more innovative and globally competitive educational environment.

Key words: learning apps, teaching, internet, artificial intelligence, technology, ChatGPT.

Introduction. Nowadays, there are positive transformations in Ukrainian higher education as the traditional model does not meet the current needs of society (Ivanytska, Dovhan, Tymoshchuk, Osaulchyk, Havryliuk, 2021). The scholars claim that ‘the educational events of the last decade have given impetus to significant changes in the education system in Ukraine’ (Zahorodna, Saienko, Tolchieva, Tymoshchuk, Kulinich, Shvets, 2022: 78). Modern foreign language teaching is closely related to innovative processes in education. The evolution of technology has significantly influenced teaching approaches. The role of digital resources and interactive techniques has increased recently (Zamkova, Tymoshchuk, Havryliuk, 2023). However, foreign language learning in the context of digitalization faces a number of challenges and problems that may affect students’ learning and performance, and therefore require attention and research. It is important to consider and study the issues of digital competence and literacy of the educational process participants, as well as ways to implement digital pedagogical technologies in the educational process, taking into account all the characteristics of learners. The development of philological education in Ukraine in the context of digitalization requires new approaches and tools for teaching and learning language, literature, and culture. Digitalization makes it possible to expand access to knowledge and information, promotes creativity and improves learning efficiency.

Analysis of recent studies and publications. Recently, outstanding Ukrainian and foreign scholars have conducted a number of studies on the digitalization of education. The concepts of ‘informatization’ and ‘digitalization’ in the context of digital transformations and topical issues of digital humanistic pedagogy are discussed (Matviienko, Tsyvin, 2020); current issues and trends in the transformation of the educational environment are studied, taking into account the introduction of information digital technologies. Scientists consider the possibility of synchronizing strategic goals aimed at ensuring broad access to digital technologies and resources in education, as well as improving the learning experience and educational process management (Zhernovnykova, 2018). The digitalization of the educational process is considered to be a compulsory area of development for most higher education institutions, which requires the use of all available resources, the implementation of necessary technological solutions, a change in the outlook of all participants in the

educational environment and support from the government within the national digital education programs (Mishchenko, Kuznietsova, Andriichyk, 2022; Prokopenko, 2022; Tymoshchuk, 2022; Sukhonos, Harust, Shevtsov, 2019).

According to Ukrainian scholars, the philological science and education digitalization is one of the modernization trends. The scientists argue implementation of all possible electronic tools, online services and applications in the educational process is promising (Vydaichuk, Rusachenko, 2023).

Prominent Ukrainian and foreign scientists (S. Batsenko, Yu. Harust, O. Hlazova, O. Denysenko, N. Dyka, M. Zhovnir, V. Kyrylenko, V. Kovalenko, T. Leshchenko, M. Marienko, T. Romashko, V. Sukhonos, Yu. Trach, Yu. Chaliuk, Ya. Shevtsov, O. Shevchenko, O. Shparyk, S. Awasthi, N. Saeed, H. Al-Samarraie, Y. Soni) have researched various issues of philological education digitalization. Their works are a significant theoretical basis for our study.

The purpose of the study. This article aims to analyze the development of philological education in Ukraine in the context of digitalization of the educational process.

Methods of the study. The study employs general scientific methods (analysis, synthesis, comparison, generalization) as well as highly specialized. The method of literature review is used to summarize educational experience of digitalization of the educational process.

The findings of the study. Digital technologies are an integral part of the new social development reality, significantly change the learning process in schools and higher educational institutions. Digitalization of education is a process of systemic modernization of the educational space based on the use of digital technologies (Sukhonos, Harust, Shevtsov, 2019).

The most effective innovative strategies in philological education include communication, social, cognitive, and metacognitive. These strategies are aimed at developing communication skills, forming cultural competence, developing critical thinking, and increasing the level of digital literacy. Students who have the skills to use a wide range of learning strategies can improve their knowledge and skills more effectively. Mathematical and cognitive strategies in philological education improve the organization of academic time, self-control, and self-assessment (Jalilbayli, 2022: 38). Students can carry out various projects, participate in scientific conferences and virtual excursions, and watch online broadcasts of various educational events by using digital technologies. In general, the advantages of digitalization of philological education and science include convenient search for information; motivation to learn due to interactivity, flexibility and diversity of information; access to information from any location; the ability to use not only ready-made content but also create your own (Bader, Oleksiienko, Mereniuk, 2022: 25).

However, the digitalization of education has certain risks. The main risks of digitalization of education are the following: the risk of using insufficiently researched technologies; the risk of worsening the ability to perceive more information due to so-called ‘digest mania’; the risk of so-called screen addiction among students, the risk of a possible mental decline, which many experts consider to be ‘the development of digital dementia’; the risk of displacement of live communication; health-related risks; risks of information manipulation (Romashko, 2021).

Digitalization has significantly transformed philological education, integrating technology into various aspects of language and literature studies. Let’s consider the main components of philological education digitalization.

1. Online resources and databases. Digital collections of texts, manuscripts, literary works, and linguistic resources enable students to analyze materials from any location.

2. E-learning platforms offer courses, lectures, and interactive materials on philological studies. They often incorporate multimedia elements, discussion forums, and assessment tools to facilitate learning.

3. Digital tools are helpful in linguistic analysis. These tools, such as corpus linguistics software, help students conduct profound research.

4. Virtual libraries and museums. The digitized collections of libraries, museums, and historical sites allow students to explore cultural and literary heritage from anywhere in the world.

5. Collaborative and Remote Learning. Online collaboration tools facilitate teamwork among students and scholars worldwide. Video conferencing, collaborative editing, and shared workspaces enable real-time interactions and collaborative research projects.

6. Language Learning Apps and Software. Interactive language learning apps offer personalized, adaptive exercises and multimedia content to improve language learning and proficiency.

7. Social networks and online communities. Platforms such as forums, social media groups, and academic communities provide a space for discussion, knowledge sharing, and networking among philologists across the globe.

8. Artificial intelligence services. AI can help teachers detect plagiarism, evaluate student performance, curate and create educational materials.

The integration of these components strengthens traditional philology education, offering new opportunities for research, collaboration, and engagement in the field.

Scientists suggest that the implementation of various types of digital technologies in the educational process is one of the main directions of digitization of philological education and science (Makarenko, Pevse, 2022: 145). It is known that digital educational technologies are a type of information technology and involve working with a wide range of digital resources and can perform various functions. As far as different functions were concerned, we mean two basic functions, i.e., providing information and creating it. Dictionaries, electronic libraries, translators, educational platforms, and language learning apps provide information. Online tests, questionnaires with data consolidation, presentations and infographics are created by means of digital resources.

In Ukraine, teachers are actively using various platforms such as Google Meet, Zoom, Skype, Microsoft Teams, Classtime, Cisco Webex Meetings to conduct distance learning. Some distance learning platforms, such as Prometheus, Khan Academy, and VUMonline, provide online courses and video tutorials that can be used in various educational programs. YouTube channels with lessons and online learning studios, such as WiseCow and EdEra, are also sources of knowledge and learning resources (Kyrylenko, Chaliuk, 2022: 27).

Speaking of philological education digitalization, we need to consider artificial intelligence (AI) and machine learning. AI incorporates different branches, such as machine learning, natural language processing, and computer vision, and has proven its effectiveness in various industries, including healthcare, finance, and education, by providing increased efficiency, reduction of payment, and enhanced decision-making processes (Joiner, 2018). 'With the rapid development of technology, artificial intelligence has emerged as a good tool in education, providing students with efficient learning experiences' (Sabadash, Hanzin, Pavliuk, Drahan, 2023). According to Marienko M., Kovalenko V., AI can be used to help students perform routine tasks in the learning process and assess their current level of knowledge (Marienko, Kovalenko, 2023). The main benefits and uses of AI in education system are presented in Table 1.

Nowadays, scholars suggest the diversification of AI education applications, i.e., programmed learning and other open-source high technology. They 'contain tracks that suit all learners despite differences among their levels, boost their learning motivation, and cope with students' low levels of attention' (Kushmar, Vornachev, Korobova, Kaida, 2022: 265). These applications provide feedback that indicates student achievement levels and points of weakness and strength in the scientific content. Instructors monitor this process and provide guidance and feedback. AI tutoring systems can replace instructors as they have programs that provide advice automatically and enable learners to use self-study skills (Kamuka, 2015).

Chat GPT is a recent service of AI that has gained unique attention in the education sphere. Chat GPT has several benefits such as:

Table 1

**The Potential Benefits and Uses of Artificial Intelligence in Education System
(Awasthi, Soni, 2023)**

Benefit	Usage
Personalization	AI systems adapt to each individual student's learning needs and target according to their strengths and weakness.
Tutoring	AI systems analyses and observe student's current style of learning and pre-existing abilities then deliver customized content pattern and support.
Grading	AI systems do grading not only objective answers but also on descriptive answers
Meaningful and real time feedback to students	With AI, students feel free to make mistakes which are an integral part of learning and then receive real time feedback to do necessary correction.
Free up time	With AI the education centers can reduce time of teachers from various tedious task and use that free up time for much productive execution of course
Adaptive Learning	Used to teach students at entry level then gradually move next stage by completing the previous one so they can become proficient
Assistive Learning	AI can enable students to access equitable education as per need, for example by reading content to a visually impaired student
Early Childhood Education	AI is currently used to present interactive games which teaches and develops the basic ethical and academic skills in children
Data and Learning Analysis	Nowadays AI used by faculties and education administrators to analyze and interpret educational data
Scheduling	In educational institutions it helps administrators to schedule classes, courses and teachers to make and plan their daily, weekly, monthly and sessional curriculum schedules
Facilities Management	AI is very effective at monitoring the current status of various facilities in educational institutions
Overall School Management	Currently AI is used to manage schools, records of students, vehicles, IT, time tables and budget
Content Writing	AI applications which convert voice into text are widely used

1. **Personalization:** ChatGPT provides a customized learning experience that meets the unique needs and interests of each learner. This customization increases engagement and motivation, leading to more effective learning.

2. **Accessibility:** Remote access to ChatGPT allows students to study at their convenience, regardless of location or time. This flexibility helps students better manage their work, study and personal responsibilities.

3. **Efficiency:** ChatGPT helps teachers optimize assessment processes and provide personalized support to students by offering instant feedback to students. This efficiency allows teachers to devote more time to important tasks such as lesson planning and classroom management to make learning more motivating (Sabadash, Hanzin, Pavliuk, Drahan, 2023).

4. **Enhanced Learning:** The use of Chat GPT can enhance student learning by providing a more engaging and interactive learning experience. This can lead to better academic outcomes and increased motivation for students (Mallow, 2023).

The positive impact of artificial intelligence, including Chat GPT, on education is clear, but there are also several potential drawbacks that cannot be ignored. Communities working at the intersection of artificial intelligence, learning, and higher education should carefully consider these implications (Bates, Cobo, Mariño, Wheeler, 2020). Educational institutions should proactively address the potential downsides of integrating AI into education to maximize its benefits and minimize its risks. The main drawbacks of using Chat GPT in learning are presented in Table 2.

Table 2

Drawbacks of using Chat GPT in learning (Sabadash, Hanzin, Pavliuk, Drahan, 2023)

Drawback	Description
Dependence	The extensive use of Chat GPT may lead to students becoming overly reliant on the model, which could negatively affect their critical / analytical thinking skills and learning independence
Bias	The data used to train Chat GPT may already contain certain biases, such as those related to race or gender. As a result, the model may perpetuate these biases rather than challenge them.
Ethics	There are ethical considerations associated with the use of Chat GPT, particularly with regard to data privacy, security, and ownership. Appropriate safeguards must be implemented to ensure that students' data is protected and used ethically.
Technical limitations	While Chat GPT has the potential to enhance personalized learning experiences, it may not be suitable for all types of learning activities or subject areas.
User interface	The user interface of Chat GPT may not be easy to navigate or intuitive for all students, especially for those who are not proficient with technology.

Thus, AI, particularly Chat GPT, is a promising tool for supporting learning in higher education, offering opportunities to enrich personalized learning, increase its accessibility and effectiveness. However, the use of Chat GPT is faced with issues such as addiction, bias, ethical concerns, technical limitations, and user interface issues. Educational institutions should overcome these challenges by implementing measures to optimize the educational benefits of AI.

Furthermore, it is important that teachers of philological subjects have the necessary qualifications and knowledge of digital technologies to effectively apply them in teaching. Researchers consider that the effective use of digital technologies in philological education requires new skills, in particular, knowledge of programming, digital content creation, and media editing (Velieva, 2022). In the modern world, digital skills are among the necessary basic ones. The ability to use digital tools to solve everyday problems and quickly master new technologies is one of the key requirements for a qualified specialist, particularly in linguistics (Upadhyay, 2020).

Ukrainian philological education in the context of digitalization requires the development of new trends allowing students to successfully study languages, literature and other subjects in the fast-paced world of technology. The main trends include 1) development of electronic libraries and archives (higher education students need to have access to digital libraries and archives to study and analyze texts); 2) access to online courses and webinars by leading teachers and scholars in linguistics and literary studies (students will learn about the latest trends in the field and study philological subjects with leading experts); 3) the use of social networks to increase interactivity and attract higher education students to the study of philological sciences; 4) development of critical thinking and analytical skills of higher education students, particularly the ability to critically evaluate the information they find on the Internet (Kholod, Honcharuk, Stokolos-Voronchuk, 2023). In general, digital resources play an important role in philological education, improving the quality of learning and developing critical thinking of students. They enable fast search of information, effective learning of new material, and convenient communication with other students and teachers (Sobchenko, 2021).

According to Nikitina, 'not only digital and information technologies themselves are important, but also their correct selection, combination, and management to establish effective work, the interaction between a lecturer and a student' (Nikitina, 2021: 137). The advantages of digital transformation of linguistic education are obvious. This is the provision of favorable conditions for: 1) developing skills to study independently, to allocate the most valuable material for self-development; 2) forming personal mobility, the ability to adapt to changing conditions unpredictably, quickly, and

rapidly; 3) strengthening motivation for self-education and self-development in a multicultural environment; 4) reaching a diverse audience (the content becomes personalized), ensuring cooperation and integration of language education; 5) forming an individual educational trajectory; 6) learning in the most convenient conditions – at a comfortable pace, but with optimal use of the time allotted to perform certain tasks (Law of Ukraine on Higher Education, 2021).

Scholars emphasized that digitalization is the transition from the education ‘for all’ to the education ‘for everyone’ (Nikitina, 2021: 137). The modern educational space is currently developing, creating all the conditions for mastering basic multilingual competencies.

Thus, using the digital technologies has opened up new channels of communication and cooperation in the educational process, encouraging students’ motivation and their active participation in learning, developing the processes of mutual assessment and feedback in the ‘lecturer –student’ system. The digital technologies are used to revitalize and individualize education, saving time and resources, much more efficiently than traditional teaching.

Conclusions. Nowadays digitalization is a key factor in improving the education system, including the philological one. The digital technologies provide a number of benefits, particularly, the optimal use of time for more effective formation of the key competencies of specialists in a multicultural language environment. Digitalization makes the educational process more personalized, accessible, and flexible, providing a comfortable environment for self-study, effective development, and career growth.

It is now important to ensure the required level of computer literacy of teachers and students, as well as the proper development of digital infrastructure at universities. We should remember the importance of humanitarian competencies, which are no less important in the digital age. Thus, the development of philological education in the context of digitalization requires the integration of digital technologies with traditional teaching methods and the preservation of the humanitarian component of the educational process. The implementation of digitalization in philology education in Ukraine has the potential to transform teaching and learning, contributing to a more innovative and globally competitive educational environment. Adaptation and thoughtful implementation will be key to taking advantage of these opportunities and realizing the full potential of digital education in the field of philology.

This study confirms the relevance of digitalization of the educational environment in the context of the formation of key competencies of future specialists in the field of philology, and proves the need for further development of the problem, particularly, the search for more effective ways to implement digitalization as a set of means that optimize learning, to provide personalization and automation of educational processes.

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