

### Chapter III. THEORETICAL-METHODICAL FUNDAMENTALS OF PROFESSIONAL TRAINING OF FUTURE TEACHERS

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## APPLICATION OF ARTIFICIAL INTELLIGENCE RESOURCES IN THE FORMATION OF STUDENTS' FOREIGN LANGUAGE COMMUNICATIVE COMPETENCE DURING ENGLISH LANGUAGE CLASSES

Abstract. The article examines the potential of using artificial intelligence (AI) resources in the process of forming foreign language competence of students during English lessons. The focus is placed on the integration of new generation digital tools that provide personalization of learning, development of critical thinking, communication skills and media literacy. The advantages and challenges of implementing AI in the educational process are outlined. Examples of didactic techniques and methodological solutions using innovative educational platforms are given. The purpose of the article is to describe the peculiarities of application the artificial intelligence resources in the process of formation foreign language competence of students during English language classes. The theoretical foundations of integrating AI into the educational process are the concepts of constructivism and the communicative approach, in which the educational content of English classes is aimed at creating optimal conditions for real communication, using language as a means of interaction and formation foreign language competence. The author emphasizes the vast potential of Al for enhancing modern teaching and learning methods, which in recent years has attracted significant interest among researchers in this field of scientific knowledge. It is noted that technological advances in the field of artificial intelligence have become the basis for improving existing methods and technologies for foreign language learning, and have also contributed to the creation of completely new digital resources for the development of speaking and writing skills. These technological advances have a significant impact on the processes of learning and teaching foreign languages, transforming traditional approaches and ideas about methods of communication and ways of creating and perceiving a foreign language. All has significantly influenced the processes of text creation, texts editing, assessment the quality of writing and voicing texts, which contributes to the formation of foreign language communicative competence of students.

Keywords: artificial intelligence, foreign language competence, English, digital tools, educational technologies.

# ЗАСТОСУВАННЯ РЕСУРСІВ ШТУЧНОГО ІНТЕЛЕКТУ В ПРОЦЕСІ ФОРМУВАННЯ ІНШОМОВНОЇ КОМУНІКАТИВНОЇ КОМПЕТЕНТНОСТІ ЗДОБУВАЧІВ ОСВІТИ НА ЗАНЯТТЯХ З АНГЛІЙСЬКОЇ МОВИ

**Анотація**. У статті розглянуто можливості використання ресурсів штучного інтелекту (ШІ) у процесі формування іншомовної компетентності здобувачів освіти під час занять з англійської мови. Акцентовано увагу на інтеграції цифрових інструментів нового покоління, які забезпечують персоналізацію навчання, розвиток критичного мислення, комунікативних навичок та медіаграмотності. Окреслено переваги та виклики впровадження ШІ в освітній процес. Наведено приклади дидактичних прийомів та методичних рішень із використанням інноваційних освітніх платформ. Метою статті є опис особливостей застосування ресурсів штучного інтелекту в процесі формування іншомовної компетентності здобувачів освіти на заняттях з англійської мови. Теоретичними засадами впровадження ШІ в освітній процес є концепції конструктивізму та комунікативного підходу, під час яких освітній контент занять з англійської мови спрямований на створення оптимальних

умов для реального спілкування, використання мови як засобу взаємодії та формування іншомовної компетентності. Наголошується на широкі потенційні можливості удосконалення сучасних методів викладання та навчання із застосування штучного інтелекту (ШІ) в системі освіти впродовж останніх років, що викликає значний інтерес у дослідників цього сегменту наукового знання. Зазначається, що технологічні досягнення у сфері штучного інтелекту стали основою для вдосконалення вже існуючих методів та технологій вивчення іноземних мов, а також сприяли створенню абсолютно нових цифрових ресурсів для розвитку мовлення та письма. Вказується, що описані досягнення в технологіях штучного інтелекту мають значний вплив на процеси вивчення і навчання іноземних мов, змінивши традиційні підходи та уявлення щодо способів комунікації та шляхів творення й сприймання іноземної мови. ШІ значно вплинули на способи створення та редагування текстів, оцінки якості написання та озвучення текстів, що в комплексі сприяє формування іншомовної комунікативної компетентності здобувачів освіти.

**Ключові слова**: штучний інтелект, іншомовна компетентність, англійська мова, цифрові інструменти, освітні технології.

#### INTRODUCTION

**The problem formulation.** The issue of the artificial intelligence (AI) development, the analysis of ways of its application in various fields of knowledge and in applied types of human activity is gaining particular relevance and generates diverse discussion issues. According to sociological surveys, understanding of the essence of AI and readiness to use it in one's professional activities is growing every year. A significant breakthrough in the development of neural networks, AI technologies, Chabot and other neuroresources in recent years has also had a serious impact on the development of modern educational space. And it is probably no coincidence that according to the Cambridge Dictionary the term "neural network" becomes Word of the Year 2023.

Such popularity and demand for Al in the education system puts forward a number of requirements for teachers regarding the level of mastery of neural networks and regulating the implementation of Al technologies in the educational process. After all, teachers need to solve a number of tasks related to the disclosure of the neural networks educational potential, form ethical rules of interaction, determine the basic culture foundations of using Al, considering ways to transform educational content and tasks for independent and individual work, while taking into account possible ways learners may apply Al to master the material and complete assignments. This leads to changes in educational and professional programs, and necessitates a review of the system of competencies and program learning outcomes that they need to form.

Analysis of recent research and publications. The specifics of training a future foreign language specialist involve not only mastering the general skills and abilities for pedagogical activity, personal qualities, but also skills and abilities determined by the specifics of his professional activity, primarily foreign language communicative competence. The peculiarities of the communicative competence formation and development have been studied by M. Berizko, N. Bidyuk, T. Vlasenko. The essence of foreign language communicative competence has been examined by N. Halska, I. Yeremenko, N. Mukan, V. Kalamazh, N. Kostenko, S. Nikolaieva, O. Tynkaliuk, O. Chorna, and others. However, the issue of using neural network technologies in English classes and the influence of these resources on the formation of foreign language communicative competence of higher education applicants has remained beyond the researchers' attention. The processes of forming foreign language competence in classes at higher education institutions have become the subject of research by modern Ukrainian scientists and linguists such as M. Zhaldak, L. Mitina, N. Nichkalo, S. Sysoeva, O. Semenog, and others.

In this context, it is worth noting that the research of M. Bearman, J. Ryan, R. Ajjawi confirms the importance of Al for the development of higher education, and the implementation of large-scale research projects. Scientists carried out a discursive analysis of various interpretations of the concept "artificial intelligence" in the psychological and pedagogical literature, which clarified the essence of its understanding and potential for application in the educational process (Bearman M., Ryan J., Ajjawi R., 2022).

#### THE AIM AND RESEARCH TASKS

The purpose of the article is to describe the peculiarities of application the artificial intelligence resources in the process of formation foreign language competence of students during English language classes.

#### **RESEARCH METHODS**

In the process of conducting the study, the following methods of scientific and pedagogical research were used: content analysis of didactic and methodological literature to clarify basic concepts, pedagogical observation to determine the features of the use of artificial intelligence resources in the educational process, analysis and synthesis of Al-based educational resources for English lessons, modeling methods to form an educational case of exercises using artificial intelligence to develop students' foreign language competence.

#### **RESEARCH RESULTS**

The need to increase the competitiveness of higher education institutions is closely linked to the options of integrating Al systems into the educational process, scientific and innovative activities of a higher education institution which contributes to increasing its reputation and ability to adapt to global technological changes.

To reveal the essence of the outlined problem, it is necessary to analyze the key concepts of the study: foreign language education, foreign language communicative competence, and artificial intelligence.

The term "artificial intelligence" is usually associated with the section of computer science, which defines the forms, methods and resources of computer support for intellectual tasks that are traditionally solved by humans. However,



the realities of the AI development and its spread in educational fields require its broader interpretation. In particular, researcher S. Terepyshnyi suggests considering artificial intelligence as "a way of imitating human intelligence by computer systems. One of the possible origins of Al lies in the idea of creating programs and systems capable of independently performing tasks that typically require human involvement" (Terepyshchyi S., 2023).

With the emergence of AI, the educational community has raised questions about the specifics of using AI technologies - neural networks - in the educational process. Such systems are empowered by their developers and can quite successfully analyze information, make certain predictions for the near and distant future, recognize human speech and images, work on analyzing large amounts of information, perform analytical calculations, make decisions, etc.

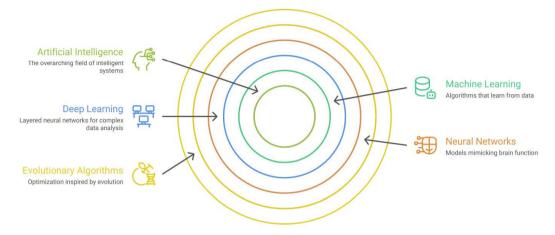


Fig 1. Hierarchy of Al Concepts

The use of artificial intelligence methods (resources) in the educational process:

- machine learning;
- neural networks;
- deep learning;
- evolutionary algorithms.

Higher education institutions, fulfilling the social need for educational modernization through the use of Al systems, are trying to introduce innovative approaches to teaching and learning that meet modern challenges and demands of society.

There is also no unanimity regarding the use of AI resources in the educational process. It is worth noting that experts disagree on the definition of aspects of its application when learning English. After all, it is clear that the development of technologies and the invention of ways to use them cannot be stopped (this would be counterproductive), and students will find an opportunity to circumvent restrictions and prohibitions on its use, if such are introduced. On the other hand, much depends on how students will use them. In particular, to perform mechanical tasks with its help (text formatting or spell checking), or to completely transfer the performance of all independent or creative work with neural networks.

On the one hand, many experts agree that it is unrealistic and counterproductive to attempt to halt the development or use of such technologies, as students will inevitably find ways to circumvent restrictions. On the other hand, much depends on how learners employ these tools whether merely for mechanical tasks (such as formatting texts or proofreading) or for outsourcing entire creative or research-based assignments to neural networks.

«However, for the most part, it is a tool that will facilitate the organization of the educational process through innovative formats of education, provided that the process of acquiring knowledge is analyzed using other approaches, which will change the attitude to technology, and most importantly, will give all participants in the educational process the opportunity to try themselves in a new role» (Chervinska I. & Melnyk N., 2023, p. 224).

Consequently, most HEIs promote the need to develop clear regulations for the use of AI in the educational process, and also the attention of all educational process participants is drawn to the formation of a culture of neural network using resources during training. In our opinion, it is not worth trying to solve the outlined challenges as a problem, applying rigid prohibitions regarding academic integrity and rules for using Al resources, but to try to solve it with collaborative efforts. Since progressive technologies for using Al cannot be stopped, we need to think about how to channel them in the right direction.

Therefore, summarizing the above, we propose key risks associated with the misuse of Al in education:

- Using AI to paraphrase and restructure text material.
- Generation of new texts without appropriate references to the authorship of works.
- Producing Al-generated abstracts, essays, projects, or reports.
- Writing creative works, term papers and diploma (qualification) projects using neural networks.
- Preparing answers to test tasks.



- Using AI as a voice assistant.
- Bypassing the proctoring system facial recognition systems.

If we analyze the essence of modern foreign language education, it is worth emphasizing that foreign language education is "not only mastering knowledge and skills in a foreign language, but also learning the culture of the people whose language is being studied.

That is, we are talking about linguocultural education, the result of which should be multilingualism of citizens of society who are aware of their belonging to a certain ethnic group and are capable of self-identification in the world. "By involving future teachers in the culture of another nation, foreign language education contributes to the development of its understanding, forms the ability to navigate in the modern multicultural and information society, ensures the establishment and development of contacts with speakers of different languages and cultures" (Ivanchuk G., 2019). The above-mentioned provides grounds to assert that foreign language communicative competence of students is formed as a result of mastering foreign language education.

Foreign language communicative competence is a comprehensive ability to successfully communicate in in oral and written forms, which involves not only possessing language knowledge and skills, but also the ability to take into account the context, cultural characteristics of interlocutors, and use appropriate communicative strategies to achieve mutual understanding and effective interaction.

The very "foreign language communicative competence" was introduced into scientific circulation by D. Hymes, and he defined it as "experience that enables a person to engage successfully in purposeful verbal communication in order to achieve success in interaction within a foreign language cultural environment" (Hymes D., 1971).

Foreign language competence is understood as an integrative personal and professional quality that determines a specialist's ability and readiness to creatively solve practice-oriented and information-communicative tasks in the field of professional activity and foreign language professionally oriented communication.

The artificial intelligence resources can be directed onto the formation of foreign language education competencies in English language classes "as a system capable of solving cognitive tasks that are assigned for the human mind during the organization of educational interaction between teachers and students studying English. Working with artificial intelligence resources is "the ability of artificial intelligent systems to perform creative functions that are traditionally considered the prerogative of a human" (Androschuk A. & Malyuga O., 2024).

Al is particularly popular among students when learning foreign languages. Artificial intelligence in foreign language learning performs the following functions:

- Analytical: analyzing students' knowledge levels and progress during English language lessons;
- Adaptive: selecting tasks based on individual needs, speech development level, and vocabulary range;
- Communicative: creating interactive dialogues and simulates a foreign language environment;
- Creative: generating texts, ideas, and language exercises for learning English and developing foreign language competence.

When analyzing the essence of artificial intelligence, it should be noted that it is an innovative field aimed at creating systems and programs capable of performing tasks traditionally requiring human intelligence. These tasks include speech and image recognition, translation, learning from experience, decision-making, behavior modeling, and forecasting.

Thus, the new possibilities of the digital industry bring both advantages and additional requirements for the use of artificial intelligence. One of the most notable events in the Ukrainian educational sphere was the broad public access to

The abbreviation "Chat Generative Pre-Trained Transformer," commonly known as ChatGPT, represents a major achievement in the field of Natural Language Processing (NLP). Developed by OpenAI, this innovative language model has undergone rigorous fine-tuning through the processing of massive amounts of textual data, allowing it to generate text responses that closely mimic human language (Fahimirad M., Kotamjani S., 2018).

Based on the Transformer architecture, specifically designed for seguential data processing, ChatGPT is a key innovation in digital technology. Its main mission is to improve human-like text generation across various applications, including customer service, language translation, and the creation of educational content.

Today, ChatGPT is being tested in numerous fields, with researchers exploring its areas of application as well as analyzing potential limitations or threats. This is supported by the article "Neural networks at the service of education: Challenges of the new era of educational transformation", where researchers (Nalvyaiko O. & Malysh K., 2024, p. 99) characterize the typical features of chatbots and modern artificial neural networks (ANNs):

- 1. Adaptive learning (this process involves monitoring the progress of individual students and alerting the instructor of any challenges faced by the student):
  - 2. Personalized learning (one can choose their level of learning, speed, and complexity);
  - 3. Automatic assessment (based on responses, it automatically evaluates and assigns grades);
  - 4. Interval learning (gradual reinforcement of learning material);
- 5. Evaluation of teachers by students (it is based on student surveys, and their attitudes towards teachers are identified, providing a basis for obtaining relevant information and adjusting actions) » (Nalyvaiko O. & Malysh K., 2024, p. 100).

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One of the promising areas of ChatGPT application, according to experts, is text editing, compilation, and the creation of texts in various formats and styles (SMM, long-reads, poetry, essays, etc.).

Among Al resources that can be effectively used in English language classes with students to develop foreign language competence, these systems are worth highlighting:

· Intelligent CALL/ICALL systems, which are recommended for use in organizing adaptive learning.

Adaptive learning is a learning technology based on building an individual learning trajectory for a student, taking into account their current knowledge, abilities, motivation, and other personal characteristics. The use of adaptive learning technology in studying English contributes to ensuring comprehensive individual learning through a personally designed program and considering the individual development trajectory of the learner's personality.

The use of Al in the process of adaptive learning during English language classes is becoming increasingly important in modern linguodidactics and language learning. This is because it allows educators to take into account the individual needs, abilities, level of English proficiency, and vocabulary of each student.

As noted by scholars I. Chervinska & M. Vasylyk in their article "Adaptive learning as a factor in optimizing the educational process in institutions of higher education": "Adaptive learning technologies can be used in different ways. Firstly, these are adaptive platforms and software that adjust the educational content of a discipline (educational component of an educational and professional programme) to individual needs and opportunities to organize learning interaction of students, offering materials and tasks of the appropriate level of complexity. Secondly, it is the use of analytics of educational data from electronic journals, digital platforms (Zoom, Google Meet, Classroom, Moodle, D-learn) to monitor student progress and adjust the educational process in online and offline modes. Finally, it is the use of intelligent tutors or chatbots that can provide students with instant feedback and support" (Chervinska I. & Vasylyk M., 2024, p. 9).

 Intelligent Computer-Assisted Language Learning (ICALL) techniques represent an evolution from CALL to systems that use machine learning to adapt to the needs of each learner. ICALL can provide personalized tasks, feedback, predict performance levels, and identify learning difficulties

ICALL resource development is difficult (Heift T. & Schulze, M., 2007). It has to balance the technically challenging needs of NLP and AI, which tend to assume correct language input, with the reality that language learners will not provide correct language when interacting with an ICALL system. CALL researchers mainly have a language and pedagogy background, being less familiar with NLP and AI.

They may be slightly apprehensive when interacting with ICALL researchers (and vice versa), as both communities speak a different language. ICALL researchers want to develop useful systems and input from CALL specialists can help them in this regard. It is important to demystify ICALL and provide non-ICALLers with the confidence to try and experiment with ICALL tools. What is difficult for programmers can be easy for CALL specialists and vice-versa (Heift, T., & Schulze, M., 2003).

In this context, it is important to emphasize the individual characteristics of students' development, which significantly affect the learning process, understood here specifically as the acquisition of knowledge in English. As noted, "the main activity of students is the process of learning, the accumulation of new knowledge, the acquisition of new skills and abilities" (Verlan A., Liashenko O., 2021).

Automatic text assessment and generation. Modern AI systems, particularly large language models (LLM, GPT-5), are capable of performing automatic assessment and generating texts according to parameters set by the instructor, predicting words or formulating entire sentences, as well as automatically checking grammar and style.

In today's Al landscape, there are different language models competing for the attention of researchers and developers. Among the most well-known and widely used in the educational domain are:

LLM (Large Language Model): a class of language models that use deep learning algorithms and are trained on massive datasets that may include not only text but also other modalities (images, audio, etc.)

GPT (Generative Pre-trained Transformer): one of the most well-known and powerful language models, developed by OpenAl. Its advantages lie in its flexibility, thanks to the few-shot learning technique, which enables the model to adapt to various tasks without additional training. However, it requires significant computational resources and may reflect biases depending on its training data.

Thanks to Al, corrective feedback (feedback) between the teacher and the student has become synchronous and fast enough. Features such as sentence and phrase auto-completion, analysis, and consideration of alternative suggestions help improve students' work.

All these achievements and innovations in the educational process of learning English have become possible and continue to develop intensively thanks to artificial intelligence resources and systems that not only collect large amounts of data and text materials, but also process them quite quickly using artificial neural networks and digital "machine learning" technologies.

It is indisputable that these digital tools have a range of strengths and weaknesses which all can be discovered and explored by students using them in exploratory environments mediated by experienced and knowledgeable teachers. (Pellet S. & Myers L., 2022). Undoubtedly, Al-powered writing assistance tools have a great potential in enhancing the teaching and learning processes in the language classroom. However, to unlock their potentials, the impact of these



tools on the learning process should be critically analyzed. Moreover, understanding the limitations of these tools in understanding the pragmatic and contextual complexity of human language can help us gain the linguistic insights needed for the right integration in the writing classroom (Vinall K. & Hellmich E., 2022, p. 20).

Secondly, technology is evolving very rapidly. Therefore, to provide a clear description of the current situation and make accurate predictions regarding the use of Al-based digital resources in student learning, it is essential to focus on the most recent research.

Thirdly, Google Translate, which is one of the most widely used learning assistance tools among students, began integrating artificial intelligence (neural machine translation) into its system as early as 2017 (Ranalli J. & Yamashita T., 2022, p. 20). Over the past few years, instant online translators like Google Translate have made tremendous progress and become available on various devices and in different formats thanks to the rapid development of mobile and Al technologies. The most recent enhancements in intelligent text assistance tools include systems capable of instantly and autonomously generating text from a single prompt.

Regardless of their grammatical accuracy, these text generators, such as Google Compose, can offer linguistically acceptable and sometimes even human-like suggestions for word choice and improvement. More advanced systems, such as GPT-3, go even further, providing complete texts that require only a topic or prompt to initiate.

Interactivity and Real Communication. All can simulate a live language environment through the use of chatbots and voice assistants, providing significantly broader opportunities for speaking practice and the development of communication skills regardless of the presence of native speakers.

Ethical Aspects and Digital Literacy. Beyond the technical component, working with AI resources involves a range of ethical challenges. This requires a high level of digital literacy among participants in the educational process and the ability to critically evaluate AI tools used in English language classes.

Special attention should be paid to the specific features of using Al in the formation of foreign language communicative competence of learners during English classes. According to S. Nikolaieva, "foreign language communicative competence is a multi-level, integral personal quality that enables an individual to formulate and effectively solve tasks and problems of varying complexity in the sphere of foreign language interaction" (Nikolaieva S., 2010, p. 87). Thus, foreign language communicative competence is understood as a complex ability to establish successful interaction and to "communicate" with speakers of another language in various life situations, using the acquired competencies to achieve the goals of interpersonal, intercultural, and professional communication and cooperation taking into account cross-cultural norms and characteristics of the interlocutor.

Development of Speaking Skills. Practical experience and studying of language communication practices among colleagues allow us to conclude that the use of digital resources in Al-assisted learning significantly improves speaking performance. It positively affects pronunciation, fluency, and vocabulary. Tools such as the Oral app, Chabot, Lyra, "Ellie", and others contribute to this process.

The use of digital Al resources in English classes has demonstrated improvements in students' speech development and in the formation of their foreign language communicative competence, compared to traditional learning methods.

Specific features of working with artificial intelligence resources are presented in Table 1.

Table 1.

#### Features of AI Resource Application in Education

Aspect	Characteristics
Essence of Al	Adaptivity, automation, generation, interactivity, ethics, digital literacy
Oral Skills	Improvement in pronunciation and structure through Al-assisted practice
Writing Skills	Automated feedback, individualized writing tasks, development of lexical and stylistic variety
Emotional Support	Reduced anxiety, increased motivation, higher readiness for communication
Broad Integration	Al use for adaptive learning, teacher support, ethical modeling, remote learning environments
Challenges and Limitations	Lack of cultural authenticity, academic integrity risks, need for critical reflection and pedagogical support

#### **CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH**

Thus, the integration of AI resources into English language classes contributes to the development of personalized learning, enabling the creation of individual learning trajectories tailored to the students' level of knowledge, learning style, and working pace. Adaptive platforms analyze student performance and offer tasks of optimal difficulty for each learner. Al-based educational systems are capable of checking grammar, conducting assessments, and analyzing written assignments, thereby giving lecturers more time for creative and methodological activities, significantly automating routine educational tasks.



Chatbots and virtual conversation interlocutors allow students to practice speaking and simulate authentic communication scenarios, which effectively simulates a foreign language environment and is particularly important for learners who do not have access to native speakers. Additionally, Al can generate texts, ideas, and discussion scenarios; however, the teacher's role is to instruct students in analyzing, evaluating, and transforming the received material, fostering media literacy and critical thinking development. Neural network resources are also successfully used to create interactive visualizations, educational videos, automatic translations and voice-overs. This contributes to the formation of foreign language communicative competence across all types of language activity reading, writing, listening, and speaking.

Further research should focus on the issue of preparing educators for the integration of artificial intelligence into the educational process in higher education institutions.

#### **REFERENCES**

- Androschuk, A. G., Malyuga, O. S. (2024). Use of artificial intelligence in higher education: status and trends. International Scientific Journal of Education and Linguistics, 3/2. 27-35. doi: 10.46299/j.isjel.20240302.04.
- Al Recommendations (2023), 83-84, https://lib.iitta.gov.ua/id/eprint/744000/12024.pdf
- Bearman M. (2023). Discourses of artificial intelligence in higher education: a critical literature review. High Education, 86. 369-385. URL: https://link. springer.com/article/10.1007/s10734-022-00937-2
- Bykov, V. Yu., Shishkina, M. P. (2016). (Cloud technologies as an imperative for the modernization of the educational and scientific environment of a higher educational institution. Theory and practice of social systems management: philosophy, psychology, pedagogy, sociology, 4. 55–70. URL: https://repository.kpi.kharkov.ua/handle/KhPI-Press/26318
- Chervinska, I. B., Vasylyk, M. S. (2024). Adaptive learning as a factor in optimizing the educational process in institutions of higher education. Mountain School of the Ukrainian Carpathians, 30. 56-60. doi:10.15330/msuc.2024.30.5-10 https://journals.pnu.edu.ua/index.php/msuc/article/ view/8815/8882
- Chervinska I., Melnyk N., Galyuk N. (2023). Blended Learning as an Innovative Organization of the Educational Process in Higher Education Institutions of Ukraine. Journal of Vasyl Stefanyk Precarpathian National University, 10/1. 216-224. DOI: https://doi.org/10.15330/jpnu.10.1.216-224 https://journals.pnu.edu.ua/index.php/jpnu/article/view/6733
- Digital Learning and Transformation of Education. Artificial Intelligence in Education. URL: https://www.unesco.org/en/digital-education/artificialintelligence (date of application: 1.07.2025)
- Fahimirad, M., Kotamjani, S. (2018). A Review on Application of Artificial Intelligence in Teaching and Learning in Educational Contexts. International Journal of Learning and Development, 8 (4). 106-118.
- Heift, T., Schulze, M. (2003). Error diagnosis and error correction in CALL. CALICO Journal, 20 (3), 433-436.
- https://mon.gov.ua/static-objects/mon/sites/1/news/2025/04/24/shi-v-zakladakh-vyshchoi-osvity-24-04-2025.pdf
- Hymes, D. (1971) On Communicative Competence. Philadelphia: University of Pennsylvania Press. 174.
- Ivanchuk, G. (2016). Foreign language communicative competence as a component of the professional competence of a future foreign language teacher. Pedagogical Sciences: Theory, History, Innovative Technologies, 4 (58). 267-269.
- Nalyvayko, O., Malysh, K., Prykhodko Ya., Chaban S. (2024). Neural networks in the service of education: challenges of a new era of educational transformation. Scientific notes of the pedagogical department, 54. 98-109. https://doi.org/10.26565/2074-8167-2024-54-09
- Nikolaeva, S. Yu. (2010). The goals of foreign language teaching in the aspect of the competency approach. Foreign languages, 1. 11–17.
- On the approval of the Concept of the Development of Artificial Intelligence in Ukraine: Resolution of the Cabinet of Ministers of Ukraine dated December 2, 2020, 1556-p. URL: https://www.kmu.gov.ua/npas/pro-shvalennya-koncepciyi-rozvitku-shtuchnogo-intelektuv-ukrayini-s 21220 (date of application: 01/07/2025).
- Pellet S., Myers L. (2022). "What's wrong with? "What is your name?" "Quel est votre nom?": teaching responsible use of MT through discursive competence and metalanguage awareness". L2 Journal, 14/1, 166-194.
- Ranalli, J., Yamashita, T. (2022). Automated written corrective feedback: error-correction performance and timing of delivery. Language Learning & Technology, 26 (1). 1-25. https://doi.org/10.5296/ijld.v8i4.14057.
- Recommendations for the responsible implementation and use of artificial intelligence technologies in higher education institutions (2025). URL: https:// mon.gov.ua/static-objects/mon/sites/1/news/2025/04/24/shi-v-zakladakh-vyshchoi-osvity-24-04-2025.pdf
- Terepyshchy, S. (2023). Media literacy in the era of artificial intelligence: integration of artificial intelligence tools and methods into modern pedagogical approaches. Current issues in the humanities, 60/4. 195-202. https://doi.org/10.24919/2308-4863/60-4-31.
- Vinall, K., Hellmich, E. (2022). Do you speak translate? Reflections on the nature and role of translation. L2 Journal, 14/1, 4-25.
- Verlan A. F., Lyashenko O. I. (2021). Information systems with adaptive management of knowledge perception processes: monograph. Kyiv: Pedagogical Thought, 230. ISBN 978-966-644-587-5.

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