

## CHATGPT: A NEW TOOL TO IMPROVE FOREIGN LANGUAGE TEACHING AT UNIVERSITY

### CHATGPT: НОВИЙ ІНСТРУМЕНТ ДЛЯ ВДОСКОНАЛЕННЯ ВИКЛАДАННЯ ІНОЗЕМНОЇ МОВИ В УНІВЕРСИТЕТІ

*In today's rapidly evolving digital landscape, artificial intelligence and its practical application are gaining tremendous relevance and significance. Scientists are dedicating special attention to the development of powerful language technologies, which represent a significant breakthrough in the field of artificial intelligence. These advances are opening up new opportunities across various sectors of society. Achievements in the field of artificial intelligence are revolutionizing university education, presenting educators with new opportunities and challenges that have the potential to radically change the management and internal structure of higher education institutions. Thanks to artificial intelligence technologies, foreign language teachers can effectively and efficiently create teaching materials. This enables them to concentrate on more significant aspects, such as lesson planning and teaching. In addition, training materials created using ChatGPT can surpass conventional ones in terms of quality and targeted focus. The aforementioned technology is capable of generating thematic content based on specific areas and intended for a specific target audience. This is what contributes to the effectiveness of foreign language teaching and the level of education in general. The article identifies numerous positive aspects of using ChatGPT for teaching foreign languages in a university setting. These benefits include providing a personalized approach to learning, creating texts with a wide range of language levels and specific lexical structures, improving students' vocabulary, developing their grammatical and lexical skills, promoting conversational abilities, and enabling the instant creation of exercises and tests. Overall, ChatGPT proves to be a valuable tool for effective language instruction in the university environment. The paper also highlights the drawbacks of incorporating ChatGPT in educational settings. These include its limited capacity for personalization, inadequate feedback, potential risks of misinterpreting context or language barriers, and the possibility of judgment errors.*

*In conclusion, the author highlights the importance of utilizing ChatGPT along with traditional language learning methods such as classroom teaching and immersion in a foreign language environment, providing clear rules and guidelines for students. Teachers should monitor students' interactions with ChatGPT to ensure that they are productive for foreign language learning. It is crucial to prevent students from replacing real comprehension with the mere utilization of artificial intelligence technology to enhance their grades. It is crucial for students to develop their own foreign language competencies rather than relying solely on AI.*

**Key words:** ChatGPT, artificial intelligence, foreign language teaching, university, neural networks, digital technologies.

*У сучасних умовах динамічного розвитку цифрових технологій галузь штучного інтелекту та його практичне застосування*

*набувають дедалі більшої актуальності та значущості. Особливу увагу вчені приділяють розвитку потужних мовних технологій, які створюють значний прорив у царині штучного інтелекту та надають нові можливості у багатьох сферах суспільства. Досягнення в галузі штучного інтелекту у контексті університетської освіти представляють, як новітні можливості, так і порушують перед освітянами певні проблеми, що можуть радикально змінити управління та внутрішню структуру закладів вищої професійної освіти. Викладачі іноземної мови за допомогою технологій штучного інтелекту отримують можливість ефективно та якісно розробляти навчальні методичні матеріали, що дозволяє їм зосередитися на більш значущих аспектах, а саме – планування занять та проведення навчання. Окрім того, навчальні матеріали, які створені із застосуванням ChatGPT, можуть перевершувати звичайні за якістю та цільовою спрямованістю. Вищезгадана технологія спроможна генерувати тематичний іношомовний контент, що ґрунтується на конкретних напрямках та призначається для певної цільової аудиторії. Саме це сприяє підвищенню ефективності іношомовного навчання та рівня вищої освіти загалом. У статті автор визначає позитивні сторони використання ChatGPT у викладанні та вивченні іноземних мов в університетському середовищі: індивідуальний підхід під час навчання; генерування текстів різного мовного рівня з певним лексичним набором конструкцій; збільшення словникового запасу студентів; формування граматичних та лексичних навичок; розвиток розмовних компетенцій студентів; миттєве створення вправ та тестів для студентів тощо. Також у роботі зазначаються негативні сторони використання ChatGPT на заняттях – обмежена персоналізація, недостатній зворотний зв'язок, ризики помилкової інтерпретації контексту або мовного бар'єра та можливі помилки в судженнях.*

*У висновках автор наголошує, що доцільно застосовувати ChatGPT в поєднанні зі традиційними методами вивчення мови – навчання в аудиторії та занурення в іношомовне середовище, з чіткими правилами та рекомендаціями для студентів. Викладачі також мають контролювати взаємодію студентів зі ChatGPT таким чином, щоб переконатися в продуктивності його використання у процесі іношомовного навчання, та, чи не призводить його застосування до підміни розуміння вивчення іноземної мови за допомогою використання можливостей технологій штучного інтелекту задля підвищення оцінок та уникнення процесу формування власних іношомовних компетенцій.*

**Ключові слова:** ChatGPT, штучний інтелект, викладання іноземної іноземної мови, університет, нейромережі, цифрові технології.

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**General statement of the problem and its connection with important scientific or practical issues.** In today's world, the field of information technology is experiencing incredible growth and innovation, with progress happening at an unprecedented rate. One of the most exciting areas of information technology development is artificial intelligence (AI). AI refers to the development of advanced computer systems capable of performing tasks that typically require human intelligence. These systems can handle tasks like visual perception, speech recognition, and problem-solving across various domains.

It is worth emphasizing the relevance of using AI in higher professional education. AI is becoming more prevalent in education, and many universities are beginning to implement AI-based tools to enhance training. Some of the ways AI is being utilized in higher professional education include, for example, personalized learning, automated assessment, AI-based predictive analytics, etc.

Incorporating the latest technologies and new devices, as well as leveraging the revolution in information, electronics, and communications, is considered crucial for the future of foreign language teaching in higher professional education. In this area, the advances of AI present exciting possibilities and daunting challenges that have the potential to revolutionize the management and internal operations of universities. The integration of AI in education is opening doors to innovative foreign language teaching methods and learning experiences. AI-powered tools empower educators to deliver personalized education, precisely meet the unique learning needs of each student, and efficiently streamline administrative tasks in universities. As the educational landscape continues to evolve, the influence of AI on foreign language teaching and university management is expected to grow significantly.

**Analysis of the latest publications. Identifying previously unresolved parts of the general problem.** Many foreign scientists are engaged in the problem of AI development and its role in the life of mankind. In their opinion, it is essential to thoroughly study the impact of AI from various perspectives, including social, economic, ethical, and legal. This will enable us to proactively identify acceptable boundaries and potential threats, ensuring that we are well-prepared for the future [1, 2, 3].

Wah, Benjamin, Hwang, Xie, Gwo-Jen, Haoran, and Gasevic D. provide a clear definition and shed light on the important role of AI research in meeting educational needs. The authors propose a framework for implementing AI in different learning environments [4]. Firat M. considers ChatGPT a promising tool for open massive education, as it can enhance learner independence and autonomy, while also being practical and adaptable. By offering personalized assistance, guidance, and feedback, the chatbot

possesses the capability to heighten the motivation and engagement of individuals who are engaged in self-directed learning [5]. Deng J., Lin Y. conclude that ChatGPT is a powerful neuro-linguistic programming (NLP) system that can generate human-like conversations, but it has a number of challenges that need to be addressed [6]. Jensen J., Yu Chen S., Albert L. point out that the low faculty to student ratio in a university can make it difficult for students to get immediate and interactive help. Chatbots, which are increasingly being used in various scenarios such as customer service, productivity, and healthcare, may be one way to help faculty members better meet the students' needs [7]. Otterloo S., Atkins S., Badrie I. review ethical frameworks for AI in their papers and found that many ethical frameworks for AI contain requirements and principles difficult to evaluate by anyone other than the chatbot developer [8]. Chuah K.-M. and Kabilan M. K. have reported a study of English as a second language teachers' views on the use of chatbots for teaching in a mobile environment [9]. The results showed that teachers perceived the use of chatbots for feedback to their students as a very useful innovation, although some of them needed additional training on how to use them. In addition, teachers believed that chatbots increased social presence, which ultimately created an environment for their students to be active. The introduction of AI technology allows for the integration of chatbot systems into various aspects of education. Chatbot technology has the potential to provide fast and personalized services to all industry workers, including institutional employees and students [10]. As a result, they are becoming increasingly popular and widely adopted.

**The aim of the article** – to analyze the advantages and prospects of introducing ChatGPT into the process of teaching foreign languages at the university and study the features and ways of integrating artificial intelligence technologies into educational practice.

**Presentation of the main material.** Each method of teaching English is undoubtedly effective in its historical context. With the progressive advancement of neural networks in our society, there has been a remarkable shift in the mindset of language learners. This shift necessitates the development of innovative technologies that can effectively meet their needs and facilitate an optimal learning experience for acquiring a foreign language.

After conducting a comprehensive review of scientific and pedagogical literature, it is evident that there are significant opportunities and potential in utilizing chatbots with artificial intelligence for teaching and learning a foreign language at the university.

ChatGPT has the ability to autonomously assess the foreign language proficiency of the user and generate text at the specified foreign language level. This

feature allows the instructor to generate the foreign language text for both the entire student group and individual learners, tailored to each student's language level. The chatbot complicates or simplifies the text by replacing lexical units and grammatical structures according to the students' level.

The foreign language teacher has the ability to assign a specific professional topic for the AI language model, thereby determining a set of words to be used in the text generated. When studying a subject like "Environmental Protection", ChatGPT offers an invaluable opportunity for teachers to create a plethora of supplementary dialogues for conversational practice. Furthermore, it provides an opportunity to generate texts for translation exercises that cover both the translation from the native language to a foreign language and vice versa. The texts can be customized to emphasize the vocabulary related to "Environmental Protection" and meet the language proficiency level of the students in a particular group. ChatGPT empowers students to acquaint themselves with frequently used English phrases and idioms that are prevalent in real-life language scenarios, extending beyond what traditional dictionaries or textbooks offer.

Foreign language teachers often encounter situations where a group of students requires additional explanation on a specific topic. In certain instances, the textbook provided might not contain enough exercises to solidify the theoretical concepts, or the text and tasks could fail to engage a specific group of students. However, with the right approach, these challenges can be effectively addressed. For example, students make many mistakes or the same mistake on a particular grammatical topic. An AI language model can assist teachers by generating a wide range of example sentences for translation, incorporating the required grammatical structure. It can also help to locate and define grammatical constructions for practice, based on the assigned tasks and specified parameters. The chatbot has the ability to generate sentences or texts with errors, which require students to correct them and create various exercises to practice the desired grammatical structure at the appropriate language level for the given group of students.

The extraordinary GPT-4 chatbot possesses the remarkable ability to not only comprehend text but also interpret images. With this incredible capability, GPT-4 can artfully depict and weave together captivating narratives based on parameters, ideas, or even images. Teachers now have a unique opportunity to introduce a wide range of creative and diverse materials, breaking free from the constraints imposed by the textbook. This opens up exciting possibilities for more engaging and supplementary learning experiences in the classroom. The educator also has the option to use the materials created by the chatbot as supplementary resources for both stronger and weaker students.

ChatGPT has the incredible ability to elucidate jokes and memes commonly used by native speakers. This invaluable feature enhances not only the study of contemporary culture but also fosters a profound understanding of the realities and mindset of native speakers in the target language. This is especially important for university students who may have to work with representatives of different cultures in their professional sphere. ChatGPT can provide valuable insights into cultural customs, holidays, and traditions, enabling learners to gain a profound understanding of various cultures and effectively navigate the intricacies of cultural differences. It is possible to use the chatbot to provide cultural context for business practices and etiquette. For example, students enter a scenario or question about the culture of business communication, and ChatGPT provides information on how to appropriately handle the situation. This helps students understand the cultural expectations and norms of English-speaking countries and prepares them for international business communication.

The ChatGPT language model is incredibly versatile, offering a wide range of possibilities to enhance and perfect your conversational skills in a foreign language. An artificial intelligence chatbot can serve as an excellent interlocutor for students who want to practice conversational English. With its advanced capabilities, ChatGPT excels at engaging in meaningful dialogues and providing responses to user questions. Its capabilities allow for rich and insightful interactions that leave users satisfied with the depth of the conversation.

ChatGPT can also be used for group work. Students collaborate by inputting questions or prompts and generating answers together in ChatGPT. This type of practice can help students develop teamwork skills and learn from their peers. One way to use ChatGPT to promote collaboration is through group discussions. Students working in groups use ChatGPT to identify topics for discussion. Moreover, leveraging ChatGPT to facilitate discussions will ensure that every member of the group has an equitable chance to take part and enhance their language proficiency. Another effective way to utilize ChatGPT is to enhance collaboration in group writing assignments or projects. Students are given the opportunity to work together in groups, leveraging ChatGPT as a valuable tool for generating ideas, creating comprehensive notes, and seamlessly editing each other's work. This helps to practice writing skills in a foreign language while learning to work collaboratively on a project.

Also, its feedback options are limited. While ChatGPT can answer students' questions, it cannot always provide comprehensive feedback on language use, pronunciation, or grammar. This limitation may hinder the effectiveness of using ChatGPT as a language learning tool.

**Conclusions and perspectives of further research.** Artificial intelligence has greatly expanded the possibilities of the educational process, ranging from the development of digital universities to the instruction of specialized disciplines. Artificial Intelligence is laying the foundation for the development of innovative learning tools, particularly chatbots that can serve as simulators in foreign language learning systems. With the help of technologies such as GPT, foreign language learning at university can become more accessible and engaging.

However, GPT should be used in conjunction with traditional language learning methods, such as classroom teaching and language immersion, and with clear guidelines for students. When using ChatGPT in the classroom, it is important to establish rules and expectations for student behavior. Students should be encouraged to use ChatGPT as a tool for learning, but not rely on it as the sole source of language learning. Teachers must be vigilant in monitoring students' interactions with ChatGPT to ensure productive usage that promotes language learning, rather than substituting it with reliance on artificial intelligence.

Recognizing the capabilities and limitations of ChatGPT as listed in this study will enable educational stakeholders to effectively utilize AI in the context of foreign language learning. The rising popularity of neural networks indicates that this technology will have a crucial role in university education in the upcoming years. The urgent requirement for additional restructuring of the educational process using AI is a crucial factor in the advancement of modern foreign language education.

#### REFERENCES:

1. Tack A., Piech C. The AI Teacher Test: Measuring the Pedagogical Ability of Blender and GPT-3 in Educational Dialogues. Proceedings of the 15th International Conference on Educational Data Mining. Durham, United Kingdom, 2022. P. 522–529.
2. Enkelejda K., Sessler K. ChatGPT for Good? On Opportunities and Challenges of Large Language Models for Education. A position paper. *EdArXiv*, 2023, P. 23–24.
3. Polak S., Schiavo G. Teachers' Perspective on Artificial Intelligence Education: An Initial Investigation. In *Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems*, New York, 2022, P. 2–3.
4. Hwang, Gwo-Jen, Xie, Haoran, Wah, Benjamin, & Gasevic, D. Vision, challenges, roles and research issues of Artificial Intelligence in Education. *Computers and Education: Artificial Intelligence*. 2020. DOI: 10.1016/j.caeai.2020.100001
5. Firat M. How Chat GPT Can Transform Autodidactic Experiences and Open Education? *OSF Preprints*. 2023. doi: 10.31219/osf.io/9ge8m.
6. Deng, J., & Lin, Y. The Benefits and Challenges of ChatGPT: An Overview. *Frontiers in Computing and Intelligent Systems*. Vol. 2, no. 2. 2022. P. 81–83.
7. Chen Y, Jensen S, Albert LJ, Gupta S, Lee T. Artificial Intelligence (AI) Student Assistants in the Classroom: Designing Chatbots to Support Student Success. *Information Systems Frontiers*. Vol. 25, no. 1. 2023. P. 161–182.
8. Atkins, S., Badrie, I., & van Otterloo, S. Applying Ethical AI Frameworks in practice: Evaluating conversational AI chatbot solutions. *Computers and Society Research Journal*. Vol.1. 2021. P. 2–6.
9. Chuah, K.-M., & Kabilan, M. K. Teachers' Views on The Use of Chatbots to Support English Language Teaching in a Mobile Environment. *International Journal of Emerging Technologies in Learning (IJET)*. Vol. 16, no.20. 2021. P. 223–237.
10. Chinedu, O. & Ade-Ibijola, A. Chatbots applications in education: A systematic review. *Computers and Education: Artificial Intelligence*. Vol. 2. 2021. p. 100033.
11. Michael Elsen-Rooney. 2023. NYC Education Department blocks CHATGPT on school devices, Networks. Chalkbeat New York. URL: <https://ny.chalkbeat.org/2023/1/3/23537987/nyc-schools-ban-chatgpt-writing-artificial-intelligence> (last access: 22.04.2024).
12. ChatGPT banned in Italy over privacy concerns – BBC News. URL: <https://www.bbc.com/news/technology-65139406>. (last access: 06.05.2024)