

THE USE OF ARTIFICIAL INTELLIGENCE IN TEACHING ENGLISH AT A UNIVERSITY

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<https://doi.org/10.5281/zenodo.10451376>***Abstract**

This article considers the problem of using artificial intelligence (AI) technologies for teaching a foreign language at a university. AI services designed for teaching foreign languages, as well as AI tools acting as teaching assistants, are considered. The linguistic and didactic capabilities of chatbots are analyzed. The variants of AI-based tasks for the organization of the educational process are presented. In the course of their research, the authors conclude that the use of AI can facilitate the preparation of a foreign language teacher for classes and checking homework, reducing the time to complete routine tasks. Students can use AI tools to practice different language aspects. However, a complete replacement of the AI teacher is not possible, since AI lacks the ability to navigate in the context of learning, empathize with students, motivate them to personal development and encourage critical thinking. Work in the field of AI application in foreign language teaching, in addition to the creation of new AI tools, should be carried out in relation to the development of systems of appropriate tasks, as well as algorithms for interaction between teachers and students with AI.

Keywords: artificial intelligence, higher education, foreign languages, chat GPT, personolized learning.

Introduction:

The advent of artificial intelligence (AI) has ushered in a new era in various sectors, including education. Particularly in the domain of language education at the university level, AI presents a revolutionary potential. The integration of AI in teaching English is not merely a technological advancement; it is a paradigm shift that redefines traditional pedagogical methodologies. This paper aims to explore the multifaceted implications and applications of AI in the context of English language teaching at universities. It delves into how AI can personalize learning experiences, enhance interactivity, automate assessment processes, and provide valuable insights into student learning patterns. The discussion extends to the role of AI in facilitating access to global resources, supporting non-native instructors, and contributing to linguistic research and development. By examining these aspects, the paper seeks to elucidate the transformative impact of AI on English language education, highlighting its potential to make learning more effective, efficient, and aligned with the dynamic requirements of the contemporary educational landscape.

According to the analytical note of the UNESCO Institute for Information Technologies in Education, AI will play a key role in implementing the idea of personalized learning, namely, adapting the content of learning and the pace of the educational process to the specific needs of each student. [1]

Defining weak forms:

In the context of the use of artificial intelligence (AI) for teaching English at universities, it is necessary to take into account a number of limitations and potential disadvantages that can have a significant impact on the effectiveness and efficiency of the educational process.

These factors require careful analysis and consideration when developing and implementing AI technologies in the academic environment.

1. **Limited understanding of context and language nuances:** Artificial intelligence, despite its advanced analytical capabilities, still has difficulty understanding context, idioms, slang and subtle nuances of language, which is a critical aspect in language learning. This can lead to incomplete or distorted perception of language features by students.

2. **Lack of empathy and deep feedback:** The human element in learning plays a key role, especially in providing individualized feedback and support. AI is not able to fully reproduce empathy and a deep understanding of the individual needs of students, which limits its effectiveness in some aspects of pedagogy.

3. **Dependence on data quality:** AI depends on the volume and quality of input data for learning and functioning. Errors in the data or their bias can lead to erroneous conclusions and incorrect training recommendations, which is especially critical in the educational field.

4. **Technical and financial constraints:** The introduction of AI into the educational process requires significant initial and operational investments, which can be problematic for educational institutions with limited resources. This also includes the need to maintain and maintain the appropriate technical infrastructure.

5. **Privacy and Data Security:** The use of AI in education raises questions about the protection and confidentiality of students' personal data. Data leakage or misuse can have serious consequences for privacy and trust in the educational environment.

6. **The risk of unifying the educational process:** There is a danger that standardized AI solutions

will lead to uniformity in learning, limiting opportunities for individualization and adaptation of curricula to the specific needs and interests of students.

Despite the presence of a number of disadvantages, AI should be perceived in the learning system as an innovative technology. However, as with the use of any technical innovations, it should be remembered that the purpose of "smart machines" is to help people, and not to nullify human, pedagogical communication, to destroy such a carefully constructed environment of personal maturation and upbringing, which is created at universities. As noted by a well-known researcher in the field of pedagogy A. Schleicher, innovation in education is not just a matter of introducing new technologies into the learning process, it is about changing approaches to learning so that students acquire the competencies and skills they need to develop in a competitive global economy. [2, p. 23–25]

According to research data from large corporations such as Intellias, Alphary, working on the development and implementation of AI, artificial intelligence algorithms have great potential for the development of e-learning in all spheres of life. International corporations are already using foreign languages to teach their employees. In large universities with modern material and technical facilities, for example, in leading technical universities or in programs focused on training transport engineers, students can also use AI to learn foreign languages at any time and anywhere. After some time, traditional schools, colleges and universities will be able to include language learning using artificial intelligence in their programs in order to diversify and expand the opportunities of students. [3]

The use of artificial intelligence in teaching English at the university level represents a significant breakthrough, opening up new opportunities to improve the efficiency and quality of the educational process. The key positive aspects of using AI in this field are listed below, based on current research and teaching practices.

Personalization of learning. AI allows you to adapt the learning process to the individual needs and level of language proficiency of each student. This is achieved through the analysis of training data and the provision of personalized assignments and recommendations, which contributes to more effective and focused learning.

Real-time feedback. AI can provide instant feedback on various aspects of a language, including pronunciation, grammar, and vocabulary. This allows students to quickly correct their mistakes and improve their language skills.

Expanding educational resources. AI provides access to a wide range of educational materials and resources, which makes learning more diverse and intense. The use of multimedia and interactive tools improves the understanding and memorization of the material.

Effectiveness in teaching pronunciation and speech comprehension. Modern AI technologies, including speech recognition and synthesis, contribute to the development of pronunciation and listening skills, allowing students to practice in conditions as close to real as possible.

An example of using AI is the development of a virtual assistant that helps students hone their pronunciation skills. Such systems use advanced speech recognition and analysis algorithms to provide feedback and pronunciation correction in real time. Students can interactively participate in exercises such as reading texts, dialogues and simulating real conversational situations, while receiving an instant assessment of their pronunciation, stress and intonation. This allows them to quickly improve their skills and increase their level of language competence.

There are also AI tools that were not created for teaching a foreign language, but can be used for this purpose. Such tools include the GPT chat. Since one of the important features of GPT chat is its ability for context-sensitive understanding and text generation, the platform takes into account previous messages and responds taking into account the context, creating natural and appropriate communication situations. This feature of GPT chat allows teachers and students to interact with a "virtual interlocutor": to conduct dialogues, discuss various topics, ask and answer questions.

With GPT chat, students can gain additional practice and support outside the classroom, improve their reading, writing and speaking skills, expand their vocabulary, and improve their communication style. In the audience, the key organizer of the educational process, as P.V. Sysoev P.V. and E.M. Filatov rightly point out, should still be a teacher, acting as an "assistant and expert in the field of a foreign language, helping and creating conditions for learning, education and development".[4]

E.V. Ivakhnenko and V.S. Nikolsky, who investigated the use of GPT chat in education, are convinced that neural networks will become an integral part of education at all levels, just as computer computing functions once firmly entered our lives. The authors note that text generation, analysis and evaluation systems successfully work as catalysts for search solutions, "integrators and optimizers" of mental operations, and help in solving complex cognitive and innovative tasks. GPT chat facilitates faster entry into a new field of knowledge – a dialogue with him allows you to identify relevant issues and formulate hypotheses. [5]

Transitioning to a discussion on AI technologies in foreign language learning, it's pertinent to examine specific programs tailored for this purpose, such as Duolingo and Babel.

Duolingo, with its AI tool BirdBrain, offers personalized learning paths in over 30 languages by analyzing user profiles and predicting learning trajectories. It identifies challenging tasks for learners and tailors future lessons based on past mistakes. The "Explain My Answer" feature allows interaction with the Duo bot, which provides feedback and examples for better comprehension. Duolingo's Roleplay feature enables learners to gain points through real-life scenario practice with virtual characters.

Conversely, Babel, as an interactive online course, utilizes AI for speech recognition and pronunciation correction, comparing student's spoken words against native language samples from its database.

Example of a task for students of the Faculty of Foreign Languages using ChatGPT:

Topic: Interactive communication with artificial intelligence in a foreign language

Objective: To practice a foreign language through dialogue with artificial intelligence (ChatGPT) to improve communication skills, expand vocabulary and improve grammatical skills.

Task: Preparation of questions: Students should prepare a list of 10 questions in a foreign language related to culture, history, literature or current events of the country of the language being studied.

Conducting a dialogue with ChatGPT: Using prepared questions, students conduct a dialogue with ChatGPT. They should ask questions, analyze the answers, and continue the dialogue by asking clarifying or additional questions.

Analysis and reflection: After the dialogue, students analyze the information received and their feelings from communicating with AI. They should note what new words or expressions they have learned and evaluate their ability to keep up a conversation.

Assignment Report: Students prepare a short report in which they describe their experiences, mention new words and expressions that they have learned, and share their thoughts on the possibilities of using AI in learning a foreign language.

Expected results: Development of communication skills in a foreign language, expansion of vocabulary, understanding of cultural and historical aspects of the country of the language being studied, and increased confidence in the use of a foreign language in dialogue.

The prospect of AI in universities

The scientific literature pays considerable attention to the prospects of using artificial intelligence in teaching English in university courses. It is expected that the future of AI in this field will be characterized by increased personalization of learning, in which machine learning algorithms will be able to adapt educational material to the individual needs and preferences of students. This approach can provide a significant increase in learning efficiency, allowing students with different language skills and educational backgrounds to achieve better results. In addition, the development of AI promotes innovations in teaching methods, including the use of virtual and augmented reality to create immersive language environments, which can significantly improve students' language understanding and cultural knowledge.

On the other hand, the future of AI in language learning also involves overcoming a number of ethical and technical challenges. In particular, data privacy and security issues are becoming increasingly relevant, as the use of AI requires processing large amounts of personal information of students. It is also necessary to take into account the potential increase in social inequality, since access to advanced technologies may be limited in some regions and institutions. Therefore, the development and implementation of AI in educational programs requires an integrated approach that includes not only technological innovations, but also consideration of ethical, social and cultural aspects, which is the subject of active research in the modern educational field.

Conclusion

Thus, AI is already used in the practice of teaching foreign languages in universities, so it is impossible to ignore its presence. Therefore, it is necessary to start a scientific discussion about its future role in teaching and learning in higher education institutions and what choice universities will make regarding AI. In fact, now is the time for universities to rethink their functions and teaching systems, as well as their future relationships with AI technologies and their owners. In addition, higher education institutions should be aware of the full range of opportunities and challenges that are being actualized by AI. These new opportunities will facilitate lifelong learning within a strengthened model that can preserve the integrity of the core values and goals of higher education. It is very important to conduct further research to identify new roles of teachers in the educational process, as well as new ways of teaching students of higher education institutions with a new set of graduate competencies, with an emphasis on imagination, creativity and innovation, which can hardly ever be reproduced by machines.

It is obvious that fundamental research is needed to develop effective methods of interaction and cooperation between humans and AI. Despite its rapid development, the idea that we can rely only on technology to improve the quality of education is a dangerous path. In our opinion, it is necessary to fully support the right of a person - a teacher and a student - to freely criticize emerging educational issues, make non-standard decisions, human communication and pedagogical support in the process of personal formation and maturation. At the same time, it is necessary to promote the initiative and creativity of each member of the academic community, which will benefit not only individuals, but also all persons involved in the educational process.

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