

## **AI CONVERSATIONAL AGENTS IN ENGLISH LANGUAGE LEARNING**

Introduction. In today's educational environment, artificial intelligence is becoming an important tool for learning foreign languages. The construction of new pedagogical models of foreign language learning is based on a combination of a teacher's role and digital technologies. It makes improving the quality of learning possible by providing a more focused learning process where students are more actively involved than in traditional teaching methods.

Due to the development of AI technologies, the so-called conversational virtual agents or AI agents (AI Agents, Intelligent Agents, IA) are emerging as systems of intelligent conversational dialogue that simulate a natural conversation with people. Natural language processing allows them to understand and interpret user requests, and machine learning enables them to learn from interaction, improve, and make decisions quickly [5]. When integrated into the educational process, artificial intelligence agents' potential is enormous. In this regard, there is a need for scientific research into such hybrid learning models, and there is a growing body of scientific literature on integrating conversational virtual agents in improving foreign language learning.

The purpose of the study is to assess the opportunities and challenges associated with the use of artificial intelligence technologies in learning English.

Conversational AI agents are conversational dialogue systems that mimic natural conversations with humans. In order to understand natural language, artificial intelligence distinguishes conversational agents from more basic types of dialogue systems that rely on simple algorithms (e.g., the presence or absence of certain words) to generate responses. Autonomous AI agents can navigate complex and dynamic behavioural patterns, unlike traditional chatbots, which

rely on predefined rules and scripts. They can analyse and respond to user queries based on context, evolving their responses according to the flow of the conversation and the user's needs. AI agents are powered by a combination of natural language processing (NLP) and machine learning (ML) models [5].

Conversational virtual agents work in four stages. First, they use artificial intelligence to transcribe speech into text. Then, they use natural language understanding techniques to determine the primary meaning or intent of the utterance. Next, they use artificial intelligence to generate a response to the utterance. Finally, they convert the response into speech using a computer-generated voice or playback of a pre-recorded utterance. Students can use conversational virtual agents to learn English in three ways: general communication practice, task-based language learning, and structured pre-programmed dialogue [4].

Using conversational agents to facilitate general communication practice involves students conversing with conversational AI agents in English. Due to their built-in autonomous speech recognition systems, these AI assistants can understand and respond to spontaneous speech, simulating interpersonal communication and serving as conversation companions for English language learners.

Another way to use conversational agents in English learning is to incorporate the agent into completing learning tasks. To complete a task, students need to communicate with conversational AI agents, which provides opportunities for authentic conversation and spontaneous feedback, which is ultimately beneficial.

The third way to use conversational agents in English language learning is through structured, pre-programmed dialogue. Teachers develop and program conversational AI agents to conduct dialogues on specific topics.

In summary, introducing AI-based conversational digital technologies into learning English in higher education opens up several new opportunities but simultaneously is accompanied by specific problems that require a conscious

and balanced approach. One of the main opportunities is the personalisation of the learning process. Conversational virtual agents can adapt to the level of students' training, considering individual needs, the pace of learning, and personal interests. Using adaptive learning algorithms and intelligent teaching methods, a conversational AI agent can also dynamically adjust the content, pace, and complexity of learning based on each student's performance and progress. This personalised and adaptive approach can help students learn more effectively and efficiently and achieve their learning goals faster [1, p. 373]. Digital tools can automate routine tasks, such as pronunciation checks, grammar exercises, or vocabulary simulators, optimising teacher time and allowing them to focus on more complex aspects of teaching. Another important advantage is the increased motivation of students due to interactivity and game elements. It makes learning more engaging and dynamic. It is also worth noting the expansion of the teacher's didactic toolkit: conversational virtual agents allow for creating situations close to honest communication, using role-playing games, simulations, and authentic dialogues, which diversifies teaching methods [3].

At the same time, teachers and students face several challenges. First of all, there is a need for digital competence. The effective use of such tools requires technical awareness, knowledge of the functionality of digital platforms, and the ability to integrate them into the learning process. It often requires additional training or self-learning of new tools. Another challenge is the risk of reduced pedagogical control. Excessive reliance on automated tools can reduce the teacher's influence on the learning process, mainly if agents are used without proper methodological support. Hence, introducing AI into the learning process requires developing and adapting teaching and learning materials for the English course. In addition, teachers should control the quality of materials provided through digital technologies, as automatic systems do not always consider context or accuracy [2, p. 146].

Conclusion. The use of modern tools, such as artificial intelligence, significantly contributes to the effectiveness of language training and expands

the possibilities of the educational process. However, for digital technologies to be effective and not diminish the importance of traditional teaching methods it is important to follow the principles of combining traditional and digital teaching methods, e.g., at the initial stages of learning, they are handy for performing exercises. At the same time, at higher levels, emphasis should be placed on critical thinking and communication skills through live communication and text analysis in class so that students can express their opinions in real-time. At the same time, teachers should regularly assess students' knowledge through traditional methods to ensure that they have a proper level of language competence, not just the ability to use technology.

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