

Artificial Intelligence (AI) and Chat GPT in teaching at every level of education

Admission

Artificial intelligence can make the teaching process easier, more efficient and more effective at all levels - whether of the student, the teacher, or the entire education system. With AI, the teacher is able to assess the progress of students in real time, identify difficulties in their learning, adapt teaching methods and materials to the individual needs of each learner, and gain time to improve their skills. In turn, learners acquire knowledge and skills faster and with less effort, and can do so at a time and place convenient to them. AI can also effectively support the education system [1]. Among other things, AI can be helpful in analyzing educational data, automating learning processes, reinforcing cognitive skills, planning and creating curricula, adapting content and teaching methods to individual learners' predispositions and goals.

Objective

The aim of the study was to identify the possibilities and advantages of using AI and Chat GPT by both teachers and students at all levels of education.

Results

The topic of using AI in education is being taken up more and more widely both among teachers, lecturers, at the level of ministries of education of individual countries, and in such structures as the European Union [2]. The immediate cause of interest in this topic was the launch in late 2022 of a new tool from Open AI called "ChatGPT" and Bing from Microsoft. ChatGPT and Bing are advanced artificial intelligence language models that have been trained on a very large variety of texts and can generate content on a wide range of topics. Importantly, these tools have the ability to interact with humans, so they can play an important role in interpersonal communication, assisting both individuals and businesses [3]. An analysis of AI-based technologies in education identifies its components: learning platforms, virtual facilitators (learning platforms and virtual facilitators), Intelligent Tutoring System (ITS), smart content, fraud & risk management systems, and others.

A survey [4] conducted by Impact Research in the United States (2023) gathered opinions among teachers and students on the use of ChatGPT and IT in education. The survey found that teachers are more likely to use ChatGPT than students. In the two months since the introduction of the technology, 51% of teachers said they use ChatGPT, and 40% of them use it at least once a week. In contrast, only 22% of students said they use the technology once a week or more. The results of another study [5] conducted on a group of learners aged 16-61 (94% of whom were 16-32 years old), participating in classroom, online and hybrid education, earning a degree, bachelor's, master's, doctorate or professional degree, indicate that 43% of respondents have experience using AI tools such as ChatGPT. However, respondents are not sure when using AI can be considered an aid and when it can be considered a scam.

In a survey conducted in Poland, the percentage of respondents - parents who express the opinion that they would like their children to participate in AI technology classes (robotics, logic or programming, etc.) is 53.1%. According to parents' opinions, the main obstacles to the development of digital competencies using AI for their children are primarily staff shortages in schools (46.7%) and inadequate core curriculum (43.8%) [6].

Summary

The application of artificial intelligence in planning and curriculum development brings benefits to both learners and those involved in planning, curriculum development and instruction. The results of numerous studies indicate that the main effect of implementing artificial intelligence for learners is to increase their motivation and engagement in the learning process [7] and influence their growing interest in learning [8]. In addition, interactive learning environments promote individuals' engagement with educational content [9], and the use of AI technology improves teaching competence by providing inspiration and promoting self-reflection [10]. AI introduces adaptive teaching strategies [11] by increasing teachers' insights into learning processes [12], taking into account learners' actions and emotions [13]. AI also provides teachers with professional development, as it can offer them models for evaluating teaching and suggestions for improving their teaching practices [14]. However, regardless of its usefulness, human control is still essential, and the use of an AI system should be ethical.

ChatGPT