



ARTIFICIAL INTELLIGENCE AND ITS IMPORTANCE IN EDUCATION

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This article analyzes the concept of artificial intelligence and its role and significance in the education system. It highlights how the integration of artificial intelligence technologies into the educational process enables personalized learning, automates assessment procedures, and supports teachers' professional activities. In addition, the role of artificial intelligence in the development of distance learning and its potential to improve the quality of education are discussed. The article emphasizes the importance of the effective and responsible use of artificial intelligence in creating a modern and efficient educational environment.

Today, the rapid development of digital technologies has a strong impact on all spheres of social life, in particular, the education system. In this process, artificial intelligence (AI) is becoming an important tool for improving the quality of education and organizing teaching and learning processes more effectively. Artificial intelligence is not only changing the methods of delivering knowledge, but also taking the content, form and results of education to a new level. At the same time, artificial intelligence is not only improving the methods of delivering knowledge, but also radically changing the content, form and results of education, taking it to a new level. The use of AI technologies is expanding the traditional role of the teacher, making him a subject who manages, directs and analyzes the educational process. As a result, the educational process is becoming more interactive, flexible and result-oriented.

The "Digital Uzbekistan — 2030" strategy identifies the development of artificial intelligence technologies and their introduction into the education system as one of the priority areas. Within the framework of the strategy, special attention is paid to the formation of digital competencies and the creation of an innovative educational environment [1]. Artificial intelligence is the ability of computer systems and programs to perform processes related to human intelligence, including thinking, analysis, problem solving, learning, and decision-making. Artificial intelligence includes technologies such as machine learning, deep learning, natural language processing, and data analysis. Artificial intelligence includes modern technologies such as machine learning, deep learning, natural language processing, computer vision, and intelligent data analysis. Systems developed based on these technologies have the ability to self-improve, learn from experience, and make flexible decisions, and are becoming increasingly important in various fields, in particular in increasing the efficiency of the educational process.

The use of artificial intelligence in education allows for the individualization of the learning process. Providing educational materials in accordance with the level of knowledge, interests, and speed of mastery of each student increases the effectiveness of education. For example, smart learning platforms can analyze student mistakes and provide them with appropriate recommendations [2].

Artificial intelligence also reduces the workload of teachers. Automatic checking of tests and assignments, monitoring of student activity, and preparation of reports are carried out



quickly and accurately with the help of AI. As a result, teachers will be able to focus more on creative and methodological activities.

Advantages of artificial intelligence in education. One of the main advantages of artificial intelligence in education is ensuring the openness and convenience of education. Through distance learning platforms, virtual teachers and chatbots, students can learn at any time and place. This serves to implement the principle of continuous education. In addition, artificial intelligence helps students develop independent thinking, problem-solving and critical thinking skills. Interactive exercises and simulations make it easier to understand complex topics [3]. The introduction of artificial intelligence technologies into the educational process significantly increases the effectiveness of teaching and learning. First of all, artificial intelligence allows for the individualization of the educational process. The provision of educational materials adapted to the level of knowledge, learning rate and interests of students serves to increase the quality of education.

Also, artificial intelligence-based distance learning platforms and virtual teachers ensure openness and convenience of education. Students have the opportunity to learn at any time and place, which helps to effectively implement the principle of continuous learning. Interactive classes, virtual laboratories and simulations facilitate understanding of complex topics and form practical skills.

Existing problems and limitations. There are some problems in introducing artificial intelligence into the education system. In particular, the issues of insufficient technical infrastructure, shortage of qualified specialists, and information security are relevant. Also, excessive use of artificial intelligence can negatively affect students' social communication skills. Along with the advantages of artificial intelligence technologies, there are also some limitations. In particular, insufficient development of digital infrastructure, limited equal access to technical means and the Internet can create inequality in education.

Excessive use of artificial intelligence systems may lead to a weakening of social and interpersonal communication skills in students. Data security, privacy, and ethical issues are emerging as pressing issues in the use of artificial intelligence.

In addition, since artificial intelligence systems cannot fully replace the human factor, the teacher's pedagogical skills, educational influence, and personal approach will always be important. Therefore, the use of artificial intelligence technologies should be carried out in combination with traditional teaching methods.

In conclusion, artificial intelligence is of great strategic importance in the development of the education sector. It serves to improve the quality of education, modernize the teaching process and fully reveal the potential of students. However, for the effective use of artificial intelligence, it is necessary to combine it with traditional teaching methods, increase the digital competencies of teachers and ensure technological security. In order to introduce the advantages of artificial intelligence into the current modern education system, it would be advisable to organize special training courses for teachers.

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