

## **ARTIFICIAL INTELLIGENCE TECHNOLOGIES IN EDUCATION**

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<b>A B S T R A C T</b>	<b>K E Y W O R D S</b>
<p>The introduction of artificial intelligence technologies in the field of education is playing an important role in improving the quality of education, providing an individual approach and optimizing educational processes. This article examines the use of artificial intelligence technologies in education, including adaptive learning systems, virtual teachers, automated assessment systems, and learning analytics tools. Advantages, opportunities and limitations of these technologies are also considered. The integration of artificial intelligence into the educational process opens up new opportunities for teachers and helps to create an educational system adapted to the individual needs of students.</p>	<p>Automated assessment, Optimization of educational processes, Analysis of educational materials, Virtual teachers, Chatbots in education, Adaptive learning systems, Data analysis, Educational efficiency, Innovative death educational programs, Smart educational platforms, Interactive educational tools, Cognitive analysis, Immersive technologies (VR and AR), Personalization in education, Intelligent learning environments</p>

### **Introduction**

In the modern world, artificial intelligence (AI) technologies are entering all areas of our lives, and this process does not bypass the education system. The use of SI technologies in education makes educational processes more efficient, flexible and interactive. Today, distance learning platforms, intelligent curricula and automated assessment systems play an important role in improving the quality of education.

With the help of artificial intelligence, it is possible to determine the individual abilities of students and form educational programs accordingly. This, in turn, provides a special approach to each student and serves to increase their level of mastery. In addition, innovations such as virtual teachers, cognitive analysis and immersive technologies (AR/VR) are taking educational processes to a new level.

Areas of application of artificial intelligence technologies in the field of education, its possibilities and positive impact on educational processes.

## 1. Importance of artificial intelligence in education

Artificial intelligence plays an important role in optimizing educational processes and providing a person-centered approach. It allows you to automatically assess the level of knowledge of students, create individual training programs and provide them with a flexible approach. SI technologies serve as an effective tool in identifying the needs of students and helping them in a timely manner.

## 2. Application of artificial intelligence technologies in education

Adapted learning processes SI analyzes the students' learning level and recommends educational materials according to their abilities. This approach provides personalized learning and makes the learning process efficient

### • Automated assessment systems

With the help of artificial intelligence, the processes of evaluating tests, essays and other tasks are accelerated. This helps teachers save time and focus on working with students.

### • Virtual assistants and chatbots

Virtual teachers and chatbots help students around the clock. They help answer questions, explain tasks and manage the learning process.

### • Immersive technologies (AR/VR)

Virtual and augmented reality (VR/AR) technologies make the educational process interactive and interesting. For example, in history lessons, students can "travel" to ancient times, or in biology lessons, they can study the human body virtually.

## 3. Advantages of artificial intelligence in education

- Personalization of Education: Creates learning opportunities tailored to the needs of each student.
- Increase efficiency: Frees teachers from administrative burdens.
- Improving the quality of education: SI technologies provide interactive communication between students and teachers.

## 4. Problems of using artificial intelligence in education

- Dependence on technology: The danger of reducing the ability of independent thinking and creativity in students.
- Technical Challenges: SI technologies require a high level of infrastructure.
- Data security: The need to protect students' personal data.

## 5. Prospective opportunities

The use of artificial intelligence in education is expanding and opening up new opportunities. In the future, it is planned to make educational platforms more intelligent, to provide equal educational opportunities on a global scale with the help of automatic creation systems of educational materials and SI.

These developments bring modern education to the stage of digital transformation.

Artificial intelligence (AI) technologies are taking education to a new level. These technologies are gaining great importance in individualizing the educational process, increasing efficiency and enriching the educational process with innovative methods. With the help of SI, it is possible to create personalized educational programs for students, monitor the level of knowledge and offer solutions that suit their needs.

For teachers, SI technologies reduce the burden and help them focus on more creative and important tasks. At the same time, virtual assistants, automated assessment systems and interactive learning platforms significantly improve the learning process.

However, for the successful introduction of technologies, it is necessary to pay attention to such important issues as technical infrastructure, training of qualified specialists and ensuring data security. Also, maintaining the balance between the human factor and SI is the main condition for maintaining the quality of education.

In short, artificial intelligence technologies allow raising the quality of the educational system to a new level, but its implementation requires careful planning and a responsible approach.

## References

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