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INTEGRATING MODERN TEACHING TECHNOLOGIES IN THE THEORY OF ARTIFICIAL INTELLIGENCE AND PEDAGOGY

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Abstract. The article is devoted to the integration of modern artificial intelligence technologies into pedagogical theory and teaching methods. It examines the role of artificial intelligence in optimizing the educational process, improving the quality of education, and adapting educational programs to the individual needs of students. Special attention is paid to flexible educational systems, interactive educational platforms and methods of automatic assessment of knowledge, which can significantly increase the efficiency of the pedagogical process.

Key words: artificial intelligence, pedagogical theory, flexible educational systems, modern teaching technologies, interactive platforms.

INTRODUCTION

Nowadays, the role of artificial intelligence technologies in the field of education is increasing. Artificial intelligence is especially widely used in automating the educational process, personalizing the learning experience of students, and improving efficiency. Pedagogical theory and teaching methods allow creating new opportunities by integrating these technologies. The inclusion of artificial intelligence in the pedagogical process leads to innovative approaches to improving the quality of teaching and organizing education according to the individual needs of students.

This article discusses the integration of artificial intelligence and pedagogy theory, the changes taking place in teaching technologies and how this process affects the education system. Let's first consider the role of artificial intelligence in today's modern education. Artificial intelligence is a technology that makes computer systems and programs work like the human brain. Today, SI is effectively used in education, creating opportunities for personalizing the learning process of students, optimizing the educational process, and improving general teaching methods. The integration of artificial intelligence in education helps to take into account the individual characteristics of students in learning and allows teachers to conduct their lessons in an effective and interactive way.

The integration of artificial intelligence technologies in the theory of pedagogy serves to optimize the teaching process. Modern educational technologies themselves include interactive tools, adaptive learning systems, and automatic assessment platforms that allow students to be supported in the learning process. Also, artificial intelligence can help identify students' weaknesses as well as analyze the data in real-time, allowing the teacher to make necessary adjustments. Integration of modern teaching technologies[1]. Adaptive learning systems monitor student activity in real time and analyze their results. SI systems help identify student successes and challenges, and improve the effectiveness of the learning process. The system identifies each student's learning style, learning speed, and individual interests, and offers

tailored materials and exercises. For example, if a learner learns a topic quickly, the system can ask him for more complex tasks or new topics.

If the student has not fully mastered the topic, the system will offer him additional help, clarification or simpler exercises. This process helps to continuously monitor the progress of students and provide them with an individualized approach. In the theory of pedagogy, adaptive learning systems increase the effectiveness of the learning process with the help of artificial intelligence technologies. Such systems identify students' strengths and weaknesses and provide them with personalized materials and exercises. In other words, the teaching process is adjusted according to the needs of the student. This helps to improve the overall quality of education, as an individual approach to each student is implemented. In addition, adaptive systems help teachers.

Teachers can track student learning and identify areas where students are struggling. Such systems provide teachers with the information they need to monitor students and provide individualized support. Advantages and efficiency of adaptive systems One of the biggest advantages of adaptive learning systems is the ability to adapt the learning process to the individual needs of students. This approach helps motivate students and actively involve them in the learning process. Learners develop their own learning by accessing learning materials that are tailored to them, while being able to set their own pace of learning. At the same time, these systems allow teachers to monitor students more effectively and precisely. Teachers can monitor students' learning progress and difficulties and make necessary adjustments.

This significantly increases the quality of education. Interactive learning tools and platforms. Interactive learning tools created with the help of artificial intelligence allow students to make learning more interesting and effective. Online tests, simulations, problems, and study materials are presented interactively, helping the learner to focus and reinforce the material. For example, with the help of virtual simulators, pedagogy students can try different teaching methods, which increases the effectiveness of teaching. Such systems analyze students' reactions to exercises and tests and provide the necessary feedback in real time. Automated scoring systems using artificial intelligence[2,3]. Assessment of students' knowledge is important in teaching the theory of pedagogy. In traditional assessment systems, the teacher spends a lot of time on the assessment process, which can lead to a loss of time and resources. Automated grading systems powered by artificial intelligence allow for quick and efficient grading of student tests and exercises. These systems also allow students to identify their weaknesses and provide them with additional resources and materials on an individual basis. Advantages of integrating artificial intelligence into pedagogical theory. Artificial intelligence allows individualization of educational technologies added to the theory of pedagogy. By creating an optimized learning process for students, they improve their knowledge more effectively. This, in turn, facilitates student learning and maximizes student achievement. Artificial intelligence-based systems significantly increase the effectiveness of training. By allowing teachers to quickly and accurately assess student achievement, these systems help organize student learning more effectively. By accurately and quickly assessing students, teachers can better understand their needs and implement a personalized approach to each student. Interactive systems and feedback systems powered by artificial intelligence allow students to take control of their own learning, helping them develop independent learning and decision-making skills.

CONCLUSION

The integration of artificial intelligence and the theory of pedagogy makes the educational process more effective and personalized. The use of modern teaching technologies in the field of pedagogy optimizes the learning process of students, improves their level of knowledge and increases the effectiveness of teaching. The integration of artificial intelligence into pedagogy theory is reshaping the future of teaching, providing a personalized approach to students and helping them succeed.

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