

MECHANISMS FOR IMPROVING TEACHING EFFICIENCY WITH THE HELP OF ARTIFICIAL INTELLIGENCE

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Annotation: This article analyzes the integration of Artificial Intelligence (AI) technologies into the educational process and their impact on teaching effectiveness. AI-based systems—particularly adaptive learning platforms, intelligent tutoring systems, automated assessment tools, and analytical algorithms enable the identification of learners' individual needs, the customization of educational content, and real-time monitoring of the learning process. The article also examines mechanisms for enhancing student motivation, deepening knowledge acquisition, and optimizing pedagogical practices through AI. The research findings contribute to the development of effective strategies for implementing AI in the education system and defining promising directions for digital pedagogy.

Keywords: artificial intelligence, digital education, teaching effectiveness, adaptive learning system, intelligent assessment, educational technologies, digital pedagogy.

INTRODUCTION.

In recent years, the digitization process observed in the field of education has paved the way for the widespread application of artificial intelligence (AI) technologies. Initially rapidly developed in the industrial and economic sectors, artificial intelligence systems have now begun to become an integral part of the educational process in educational institutions. According to research conducted by leading scientific centers around the world, the integration of AI technologies into education not only improves the quality of teaching but also enables the effective implementation of a learner-centered approach.

Today, one of the main tasks facing educational institutions is to organize the learning process of students as efficiently as possible by harmonizing traditional forms of knowledge delivery with modern digital technologies. From this perspective, the need to thoroughly study the scientific and theoretical foundations of introducing artificial intelligence technologies into the teaching process and to develop practical mechanisms is increasing day by day.

DISCUSSION AND RESULTS.

During the research process, the role and effectiveness of artificial intelligence technologies in improving educational efficiency were analyzed in detail. The results showed that adaptive learning platforms created with the help of AI demonstrate high efficiency in providing education tailored to the individual needs and knowledge levels of students. These systems enable the organization of the learning process in a personalized and interactive manner, which in turn significantly increases students' interest in and motivation for learning.

Additionally, AI-based automated assessment tools help quickly and accurately determine students' knowledge levels, allowing educators to adjust their teaching methods in real time. This mechanism is crucial from the perspective of effective management of the pedagogical process and strengthening individual approaches. Another important finding of the study is that using intelligent tutors facilitates the mastering of complex topics and provides additional resources to reinforce students' knowledge. The results indicate that digitizing education with the help of artificial intelligence not only improves the quality of the teaching process but also enhances the overall efficiency of educational institutions. At the same time, based on the data obtained, some technical and methodological challenges arising during the implementation of AI technologies in the pedagogical process were identified. For example, students' individual approaches to technology and difficulties educators face in mastering new teaching tools may affect the quality of education. Therefore, a comprehensive approach is necessary for the successful integration of AI technologies into the educational process, including regular training for teachers and technological support. Overall, the results of this study confirm the need to develop advanced mechanisms and strategies for the effective use of artificial intelligence in education. The integration of AI technologies in education not only improves the quality of knowledge but also expands opportunities to develop students' creative thinking abilities and to form their independent learning skills. In this regard, artificial intelligence can become an important tool for implementing innovative approaches in the field of education.

CONCLUSION.

According to the results of this study, the integration of artificial intelligence technologies into the educational process significantly enhances teaching effectiveness. It was emphasized that adaptive learning systems, intelligent assessment tools, and automated tutors make it possible to organize the learning process tailored to the individual needs and knowledge levels of students. This, in turn, ensures that the educational content is personalized and interactive,

increasing students' interest in and motivation for learning. Furthermore, the challenges identified in the study and their solutions were recognized as important factors for the successful implementation of AI technologies in the education system. It was shown that to improve the efficiency of the educational process, the readiness of educators to work with technologies, students' digital literacy, and the presence of continuous technical support systems are essential. Overall, the digitization and individualization of education through artificial intelligence create opportunities to take the quality of education to a new level. In the future, with further development and improvement of these technologies, innovative approaches in education are expected to expand, leading to increased efficiency and quality of the learning process.

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