ARTIFICIAL INTELLIGENCE AND THE EFFICIENCY OF THE EDUCATIONAL PROCESS

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Abstract: *Artificial intelligence (AI) is transforming the educational process, making it more individualized and effective. It personalizes training programs, automates assignment grading, and provides in-depth feedback for faster, more accurate learning. AI also helps expand access to education. However, there is a need to strike a balance between technological innovation and the human element of learning, and to consider the ethical and safe aspects of data use.*

Key words: *artificial intelligence, educational process, learning resources, learning style, personalization of learning, adaptive learning*

ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ И ЭФФЕКТИВНОСТЬ ОБРАЗОВАТЕЛЬНОГО ПРОЦЕССА

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Аннотация: *Искусственный интеллект (ИИ) трансформирует образовательный процесс, делая его более индивидуализированным и эффективным. Он обеспечивает персонализацию учебных программ, автоматизирует оценку заданий и предоставляет углубленную обратную связь, что способствует более быстрому и точному обучению. Также ИИ способствует расширению доступа к образованию. Однако необходимо соблюдать баланс между технологическими инновациями и человеческим*

элементом в обучении, а также учитывать этические и безопасные аспекты использования данных.

Ключевые слова: искусственный интеллект, образовательный процесс, обучающие ресурсы, стиль обучения, персонализация обучения, адаптивное обучение

Introduction. In recent years, artificial intelligence (AI) has become a significant factor in the educational field. Foreign experience shows that AI can significantly improve the efficiency of the educational process by providing personalized learning resources and optimizing curriculum.

Methods. As a methodology, an analysis of scientific publications, reports of educational institutions and case studies on the use of AI in education was carried out. Particular attention was paid to examples from the USA, Europe and Asia.

Results. Research has shown that AI helps teachers tailor material to individual student needs, as well as analyze performance and predict potential learning difficulties. AI-based programs such as adaptive learning and intelligent tutors have shown significant improvements in learning.

In education, AI is finding applications in various fields to help improve learning and streamline processes. Here are some specific examples of the use of artificial intelligence:

Personalization of learning:

AI can adapt the material to the individual needs of each student. For example, adaptive learning systems can provide personalized learning resources and assignments based on each student's knowledge level and learning style.

Platforms like Duolingo are using AI to personalize language learning lessons2.

Feedback and rating:

AI can help teachers grade student work. For example, automated grading systems can grade tests and even analyze essays1.

ALEKS is a math platform that uses AI for adaptive assessment and personalized curriculum.

Course recommendations:

Platforms like Coursera use AI to recommend courses to students based on their interests and previous learning experiences.

Artificial intelligence has enormous potential in education, and its applications continue to evolve, improving educational processes and enriching the experience of students and teachers.

Yes, there are some disadvantages when using artificial intelligence (AI) in the educational process:

Discussion The application of AI in education requires careful consideration of privacy and ethical issues. Risks related to data security and possible infringement of student rights must be taken into account.

Lack of personal interaction:

AI can provide personalized resources, but it will not replace human interaction. Students may experience a lack of interaction with teachers and peers, which is important for developing social skills.

Limited understanding of context:

AI may have limited understanding of context and may not always be able to respond appropriately to complex issues or unusual situations.

Ethical and Confidentiality Issues:

The use of AI in education requires attention to data privacy issues. How to ensure the security of students' personal information?

There are also ethical questions surrounding the use of AI in assessment and decision making.

Dependency on data and algorithms:

AI relies on the data it learns from. If data is incomplete or biased, the quality of learning can be affected.

Technical problems:

Failures in AI systems can lead to unpredictable results. For example, automatic grading may incorrectly grade a student's work.

Difficulty of implementation:

Implementing AI in educational institutions requires staff training, as well as investment in infrastructure and equipment.

Overall, AI provides many opportunities to improve education, but its application must be accompanied by a conscious approach and consideration of the above-mentioned shortcomings.

Conclusion Foreign experience in using AI in education shows its potential in improving the quality and accessibility of education. However, to achieve the best results, it is necessary to balance technological innovation with ethical and legal standards.

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