

ADVANTAGES OF USING ARTIFICIAL INTELLIGENCE IN EDUCATION

Summary

This article explores the growing role of artificial intelligence (AI) in education, addressing both its potential and associated risks. It argues that AI can enhance the relevance of education, meet labor market demands for AI skills, and significantly boost research productivity. Key benefits include automating administrative tasks, optimizing assessment, and personalizing learning to improve student engagement. The study highlights AI's capacity to support teaching and learning even under challenging conditions, such as power outages in Ukraine. While acknowledging risks related to misinformation, ethics, and privacy, it emphasizes AI's transformative potential for modern education.

Nowadays, artificial intelligence technologies are developing rapidly. At the same time, there are more and more disputes about the appropriate use of AI tools in various fields. This issue is especially acute in the education sector, where the fair acquisition of knowledge, copyright, and ethical code are of great importance, but the use of artificial intelligence, especially by students, calls into question each of these points. As a result, some educational institutions are even blocking access to AI technologies in their school wireless networks and devices, as, for example, New York City public schools did in January 2023, shortly after the general distribution of any AI tools (Klein, 2023). However, can't such a powerful technology serve as a useful tool in education rather than a source of great risk?

First and foremost, the goal of education around the world is to teach students new ways of thinking and problem-solving, and equip them with the knowledge and skills they need to enter the workforce (Intel). Thus, it is extremely important for

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education to be relevant, and since artificial intelligence is increasingly developing and spreading in the modern world, education cannot be fully relevant without taking into account the data of AI devices. In addition, the demand for graduates with AI skills is expected to grow rapidly over the years, as according to surveys back in 2021, 69% of higher education professors surveyed felt a sharp increase in demand from employers for graduates with technical AI skills (Intel). That is why artificial intelligence in the education market is even projected to grow from USD 4.7 billion in 2024 to USD 26.43 billion by 2032 (Munde, 2023).

Secondly, artificial intelligence can accelerate and reduce the cost of university research, which is important not only for promoting scientific discovery and innovation to solve the world's most complex problems, but also for strengthening local, regional, and national economies. Therefore, artificial intelligence can greatly facilitate the work of not only students but also teachers, thus increasing their



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productivity and, consequently, the amount of knowledge transferred. For example, AI tools can automate or at least semi-automate routine administrative tasks for teachers, such as creating schedules and lesson plans, dividing students into groups and assigning them to specific projects, writing emails, or preparing documentation (Coursera, 2024). It can also optimize the process of grading homework and tests, while providing instant constructive feedback.

Another important consequence of using AI is the ability to personalize the learning process, thereby increasing classroom engagement and improving the perception of the material. This personalization is possible through the use of AI to analyze students' progress, preferences, possible knowledge gaps, and, as a result, create a teaching method that will be adapted and interesting to

individual students' needs (Mathias, 2024). Also, AI-based applications can help increase student engagement by creating interesting and easy-to-understand video or voice content to digitize lectures or conferences. This is particularly relevant in the online learning process in Ukraine during frequent power outages, when students cannot join the events despite their desire, but can still gain knowledge thanks to the saved content.

This is certainly not the entire list of available opportunities provided by artificial intelligence in education, but the previous paragraphs make it clear that artificial intelligence tools can improve the educational process and enhance both teaching and learning. However, of course, when using AI, one should also keep in mind the risks of incorrect information provided by it and ethical and privacy issues.

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