

THE ROLE OF ARTIFICIAL INTELLIGENCE IN MODERN EDUCATION

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Annotation: This article explores the role of artificial intelligence in modern education, providing a detailed analysis of its importance, applications, advantages, and future potential.

AI is fundamentally transforming the education system by shaping how and what we teach, offering solutions tailored to various challenges, and enhancing overall learning experiences.

The article also discusses both the benefits and drawbacks of AI in education. The author concludes that while AI is a powerful tool in modern teaching, it cannot replace the human element and the role of the teacher.

Keywords: Artificial Intelligence, teaching and its methods, digital technologies and their advantage

Annottatsiya: Annotatsiya: Ushbu maqola zamonaviy ta'limda sun'iy intellektning rolini o'rganib, uning ahamiyati, qo'llanilishi, afzalliklari va kelajakdagi salohiyati haqida batafsil tahlil beradi.

Sun'iy intellekt ta'lim tizimini tubdan o'zgartirmoqda: u qanday va nimani o'qitishimizni shakllantirib, turli muammolarga moslashtirilgan yechimlarni taklif etadi hamda umumiy o'quv tajribasini yaxshilaydi.

Maqolada, shuningdek, ta'limda sun'iy intellektning afzalliklari va kamchiliklari ham muhokama qilinadi. Muallifning xulosasiga ko'ra, sun'iy intellekt zamonaviy ta'limda kuchli vosita bo'lsa-da, u inson omili va o'qituvchining rolini almashtira olmaydi.

Kalit so'zlar: Sun'iy intellekt, ta'lim va uning metodlari, raqamli texnologiyalar va ularning afzalliklari.

Аннотация: В данной статье рассматривается роль искусственного интеллекта в современном образовании, а также представлен подробный анализ его значимости, применения, преимуществ и будущего потенциала. Искусственный интеллект кардинально меняет систему образования, влияя на то, как и чему мы обучаем, предлагая решения, адаптированные к различным задачам, и улучшая общий процесс обучения.

В статье также обсуждаются преимущества и недостатки искусственного интеллекта в образовании. Автор приходит к выводу, что, несмотря на то что

искусственный интеллект является мощным инструментом современного обучения, он не может заменить человеческий фактор и роль учителя.

Ключевые слова: искусственный интеллект, обучение и его методы, цифровые технологии и их преимущества.

Artificial intelligence is fundamentally transforming almost all sectors, and education is no exception. As we live in the age of information technology, AI can be found in every field, and it is developing significantly in all of them. In the field of education, one of the most important contributions of AI in modern learning is personalized instruction (1). In traditional education, which we have been using for a long time, it has been considered difficult to meet the needs of every learner. However, with AI, there is a solution to this problem. AI-based systems analyze a learner's learning style, pace, and areas of difficulty, and then create personalized learning plans tailored to their needs(1).

Moreover, AI pays special attention to how each learner engages in lessons and completes materials. It has the ability to analyze how students interact with different types of content, identify where they struggle, and determine the pace and level that suit them best. For instance, adaptive learning platforms in mathematics can identify that a student understands algebra but struggles with geometry, then automatically provide additional geometry practice while advancing algebra topics. This level of customization would be nearly impossible for a teacher managing 30+ students simultaneously (2). More than 86 per cent of students using an AI tool for study, writing, research, coding, and planning found that AI is now integrated into their learning. Of course, learning how AI works and being educated on the ethical and responsible use of AI can make life easier, make people more productive, and help them build a strong career for the future.(3)

Modern education has several advantages when using AI:

1. It provides a personalized approach to each student by identifying their strengths and weaknesses and offering tailored learning materials accordingly.
2. It works very quickly, checking students' work and providing instant grades and feedback.
3. It offers a wide range of resources and learning materials.
4. One of its most important advantages is that it is available 24/7 and can be accessed at any time.
5. It saves teachers' time and increases the overall effectiveness of education.
6. AI can make education more cost-effective by automating administrative tasks and providing scalable learning solutions(4).
7. Learners can use AI to help them with a range of different tasks. There are apps for just about every school subject so you'll find plenty of ways to include

this technology in classes(5).

And of course, along with these advantages, there are also several disadvantages:

1. Not everyone has access to the internet and technology, which leads to technological inequality.
2. The lack of the human element in AI-based learning.
3. AI can sometimes provide incorrect or superficial answers.
4. The use of students' data raises concerns about security and privacy.
5. Both students and teachers may become overly dependent on AI.
6. It may reduce creativity and critical thinking skills.
7. Lastly, the rise of AI in education brings the concern of teacher job displacement. As AI systems take on more roles traditionally filled by educators, there is a fear that teachers may become obsolete(4).
8. Educators are no longer the authority - teachers are often discovering and experimenting with new tools at the same time as their students. In many cases, schools are lagging behind their learners(5).

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