THE ROLE OF ARTIFICIAL INTELLIGENCE IN MODERN EDUCATION

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Abstract

This article examines the role of Artificial Intelligence (AI) in modern education and its impact on teaching and learning processes. AI technologies help improve the quality of education through personalized learning, online platforms, and automation of educational tasks. The article discusses the main advantages of AI, including accessibility, time-saving, and support for inclusive education. In addition, some challenges related to technology use in education are also highlighted. The study shows that AI has become an important tool for creating a more effective and innovative educational environment.

Keywords:

Artificial Intelligence, modern education, educational technology, online learning, personalized learning, automation, digital education, innovation

Аннотация

В данной статье рассматривается роль искусственного интеллекта (ИИ) в современном образовании и его влияние на процессы преподавания и

обучения. Технологии ИИ помогают повышать качество образования с помощью персонализированного обучения, онлайн-платформ и автоматизации образовательных задач. В статье анализируются основные преимущества ИИ, включая доступность, экономию времени и поддержку инклюзивного образования. Также рассматриваются некоторые проблемы, связанные с использованием технологий в образовании. Исследование показывает, что ИИ стал важным инструментом для создания более эффективной и инновационной образовательной среды.

Ключевые слова:

искусственный интеллект, современное образование, образовательные технологии, онлайн-обучение, персонализированное обучение, автоматизация, цифровое образование, инновации

Annotatsiya

Ushbu maqolada sun’iy intellektning zamonaviy ta’limdagi o‘rni va uning o‘qitish hamda o‘rganish jarayonlariga ta’siri yoritilgan. AI texnologiyalari shaxsiylashtirilgan ta’lim, onlayn platformalar va ta’lim jarayonlarini avtomatlashtirish orqali ta’lim sifatini oshirishga yordam beradi. Maqolada sun’iy intellektning asosiy afzalliklari, jumladan qulaylik, vaqtni tejash va inklyuziv ta’limni qo‘llab-quvvatlash masalalari ko‘rib chiqilgan. Shuningdek, ta’limda texnologiyalardan foydalanish bilan bog‘liq ayrim muammolar ham tahlil qilingan. Tadqiqot natijalari AI samarali va innovatsion ta’lim muhitini yaratishda muhim vosita ekanligini ko‘rsatadi.

Kalit so‘zlar:

sun’iy intellekt, zamonaviy ta’lim, ta’lim texnologiyalari, onlayn ta’lim,

shaxsiylashtirilgan ta’lim, avtomatlashtirish, raqamli ta’lim, innovatsiya

Artificial Intelligence (AI) has become one of the most important technological innovations in the modern world. Today, AI is widely used in many fields, including healthcare, business, transportation, and especially education. The integration of artificial intelligence into education is transforming traditional teaching methods and creating new opportunities for both teachers and students. AI helps make learning more personalized, interactive, and accessible (Holmes, Bialik & Fadel, 2019).

One of the main advantages of AI in education is personalized learning. Traditional classrooms often use the same teaching methods for all students, even though learners have different abilities and learning speeds. AI-powered educational systems can analyze students’ performance and provide materials based on their individual needs. For example, language learning applications and online platforms can suggest exercises according to a student’s progress and weaknesses (Luckin et al., 2016). This helps students learn more effectively and confidently.

Another important role of AI is automating administrative and routine tasks. Teachers spend a lot of time checking assignments, preparing reports, and organizing educational materials. AI tools can automatically grade tests, track attendance, and manage schedules (Chen et al., 2020). As a result, teachers can focus more on teaching, communication, and supporting students academically and emotionally.

Artificial intelligence also improves accessibility and inclusive education. Students with disabilities can benefit from AI technologies such as speech recognition, screen readers, text-to-speech programs, and automatic subtitles (UNESCO, 2021). These technologies help students with visual, hearing, or learning impairments participate more actively in the educational process. Therefore, AI contributes to creating equal educational opportunities for all learners.

In addition, AI supports distance and online learning. During and after the COVID-19 pandemic, many schools and universities relied on digital platforms. AI-powered systems helped maintain communication between teachers and students through virtual classrooms, smart tutoring systems, and interactive learning applications (Zawacki-Richter et al., 2019). AI can also provide instant feedback, answer students' questions, and recommend learning resources at any time.

Despite its advantages, the use of AI in education also has some challenges. Excessive dependence on technology may reduce face-to-face communication and critical thinking skills. There are also concerns about data privacy, cybersecurity, and the ethical use of students' information (Williamson & Eynon, 2020). Furthermore, not all schools have equal access to advanced technologies, especially in developing countries.

In conclusion, artificial intelligence plays a significant role in modern education by improving learning quality, supporting teachers, and increasing accessibility. Although there are certain risks and challenges, AI has the potential to make education more efficient, flexible, and inclusive. In the future, the cooperation between teachers and intelligent technologies may create a more innovative and effective educational environment.

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