

## HOW ARTIFICIAL INTELLIGENCE IS CHANGING EDUCATION

Narkuziyev Abdullo Abdusamat o'g'li

Webster University in Tashkent

E-mail: [nkabdullo@gmail.com](mailto:nkabdullo@gmail.com)

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**Abstract:** This article shows how Artificial Intelligence is changing education by making learning more personalized, efficient, and accessible for everyone. It explains how AI helps teachers with grading and planning, supports students with tutoring and giving feedback, and helps to make lessons more interactive. It also discusses challenges like privacy, cost, and the need for teacher training. It highlights the importance of using AI responsibly and keeping a human connection in education. In short, with the right approach AI tools can help create a better learning experience for everyone and prepare students for the future.

**Key words:** Artificial Intelligence, Education, Personalized Learning, Teachers, Students, AI chatbots, Online Learning, AI Ethics, Technology, Future of Education.

## КАК ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ МЕНЯЕТ ОБРАЗОВАНИЕ

**Аннотация:** В этой статье показано, как искусственный интеллект меняет образование, делая обучение более персонализированным, эффективным и доступным для всех. В ней объясняется, как ИИ помогает учителям с оценками и планированием, поддерживает студентов с репетиторством и предоставлением обратной связи и помогает сделать уроки более интерактивными. В ней также обсуждаются такие проблемы, как конфиденциальность, стоимость и необходимость обучения учителей. В ней подчеркивается важность ответственного использования ИИ и сохранения человеческой связи в образовании. Короче говоря, при правильном подходе инструменты ИИ могут помочь создать лучший опыт обучения для всех и подготовить студентов к будущему.

**Ключевые слова:** искусственный интеллект, образование, персонализированное обучение, учителя, студенты, чат-боты ИИ, онлайн-обучение, этика ИИ, технологии, будущее образования.

## INTRODUCTION

Artificial Intelligence is rapidly becoming a powerful force in shaping the future of education. This article explores how AI technologies are being used to improve teaching and learning in both traditional and digital classrooms. AI is not just something from science fiction anymore like how it was described in the past, it's already changing how students learn and how teachers teach. It is being used in schools, colleges, and even in online learning platforms to make education more personalized, faster, and easier to access. It helps teachers understand their students better and gives students the support they need to succeed. In this article, I will explain what AI in education means, how it works, the ways it's being used, the benefits it brings, the problems we need to be careful about, and what the future might look like.

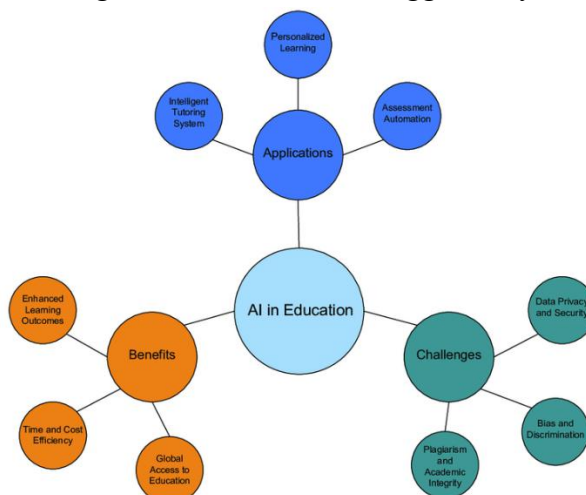
## MAIN PART

It examines how AI tools help personalize learning for students by adapting to their individual needs, support teachers by automating routine tasks like grading and lesson planning and provide full assistance through chatbots and virtual tutors [1]. The article also highlights the many benefits of AI, such as increased student engagement, improved accessibility, and data-driven decision-making in schools. At the same time, it discusses several key challenges, including

privacy concerns, cost of implementation, lack of teacher training, and potential ethical issues like bias in algorithms. The importance of maintaining the human element in education is emphasized, as well as the need to ensure that AI is used responsibly and fairly.

### AI in Education.

AI in education means using smart computer programs and machines that can learn and make decisions to help teachers and students. These systems can look at a lot of data—like how students perform in class—and use it to help make better choices. For example, if a student is having trouble with math, an AI program can notice that and offer extra help or different exercises. If another student is really good at science, it can give them harder tasks to keep challenged. This is called “personalized learning,” and it’s one of the biggest ways AI is changing education [2].



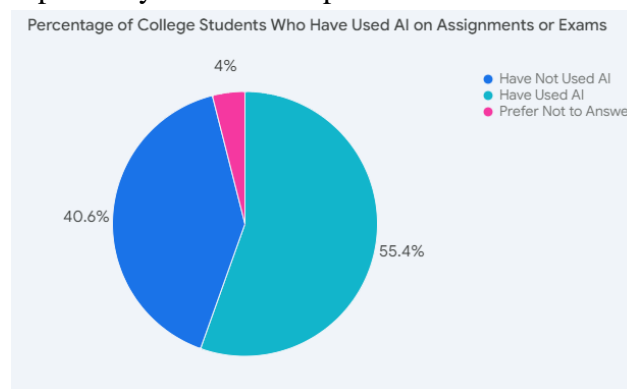
**Pic. 1.** *AI in Education*

One of the most powerful things AI can do is create a learning experience that fits each student [3]. It’s like having a private tutor who knows exactly what you need. These smart systems watch how students learn and then adjust the lessons, pace, and type of content to fit their needs. For example, a visual learner may get more pictures and videos, while someone who learns better by listening might get audio explanations. This helps students stay more interested and learn faster. AI can act like a tutor that’s always available [4]. If a student is stuck on a problem at night or on the weekend, they can ask a chatbot for help. These chatbots answer questions, give suggestions, and can even explain difficult topics. Some schools use chatbots to help with school-related questions like class schedules or homework reminders [5]. These virtual assistants don’t replace teachers, but they give extra help when a teacher isn’t around. Teachers spend a lot of time grading papers. AI can help with that. It can grade quizzes, tests, and even essays in some cases. This saves time for teachers and gives students faster feedback [6]. AI can also check for plagiarism, which means it could find out if a student copied someone else’s work. This helps keep things fair and honest. AI can help teachers create lesson plans, quizzes, and study guides. Instead of spending hours preparing materials, teachers can use AI tools to generate them quickly. These tools can suggest topics to cover, give sample questions, and even help write instructions in simple language.

### Benefits of Using AI in Education

AI adjusts to each student’s needs, learning becomes more personal and it lets students not to get bored with material that’s too easy or feel lost when it’s too hard. Everyone can go at their own pace. Teachers can spend more time helping students and less time doing repetitive tasks like grading or making schedules. This gives them more time to focus on teaching and building relationships with students. AI-powered learning tools can be fun and interactive. Some use games,

quizzes, or animations to keep students interested. Getting instant feedback also helps students feel more confident and stay motivated. AI looks at how students are doing and gives helpful information to teachers. For example, if many students are struggling with a topic, the teacher can go over it again in a new way. This kind of data helps schools improve teaching and learning. AI can help students who have learning disabilities or speak different languages. It can read text out loud, provide translations, or offer easier versions of hard reading materials. This makes learning fairer and more inclusive for everyone. AI tools can be used at any time, not just during school hours. Students can study at night, at weekends, or while traveling. This is great for people with busy schedules or those who need extra time to understand the lessons. While it can be expensive to start using AI technology, in the long run, it can save money. Schools can use fewer paper materials, and teachers can manage more students with AI support. AI doesn't just help kids even adults can also use AI tools to learn new skills or improve their careers. These tools can suggest online courses or help people study at their own pace.



**Pic.2.** *AI in Education: 2025 Statistics Reveal the Future of Learning*

## CONCLUSION

Artificial Intelligence is helping to transform education in powerful and meaningful ways. It gives students more personalized support by adapting lessons to their individual needs, learning pace, and style. It helps teachers save valuable time by automating tasks like grading, lesson planning, and administrative work. It also opens up exciting new ways to learn—through interactive platforms, virtual tutors, and real-time feedback that make learning more engaging and effective [7]. However, as AI becomes more common in classrooms, it is essential to move forward thoughtfully. We must be mindful of privacy, ensuring that students' personal data is protected. We must work toward fairness by making sure AI tools do not reinforce bias or inequality. And we must focus on making sure all students, regardless of where they live or what resources they have, can benefit from these innovations. Most importantly, we must remember that AI is a tool, not a replacement for human teachers. The relationship between a teacher and a student—the encouragement, guidance, the emotional support—cannot be replaced by technology. Instead, AI should be used to support and enhance those relationships, giving educators more time to do what they do best: inspire and connect with their students. With the right balance of technology, ethics, and human care, AI has the potential to create a future where education is not only faster and smarter, but also more fair, inclusive, and inspiring for everyone.

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