

Artificial Intelligence in Education

Brief AI history

The Artificial Intelligence (AI) concept was born in the 1940s when Alan Turing and John von Neumann started to explore the idea that machines could acquire the capacity to “think”. Further research demonstrated that machines could in fact resolve any problem in the future when unlimited resources like memory and processor were made available.¹

This vision is coming to reality in our time, where technology has evolved allowing huge amounts of information to be processed and stored, also known as the “big data” age.² With the advent of advanced algorithms like GPT-3 and GPT-4, the future of AI looks even brighter. GPT-3, which is the foundation of ChatGPT, can only accept text inputs and can process and generate human-like text. GPT-4, which is currently in development, should be capable of accepting and producing text and image inputs and outputs, being able to even create art and music.

Since the release of ChatGPT, in March 2023, AI has been in the news daily, and suddenly it seems that everybody is concerned about the impact of this technology. There are concerns about its ethical usage in multiple industries, including education. Rapid technology developments have outpaced the policy debates and regulatory frameworks for AI, but it has become an urgent matter for lawmakers to embrace.

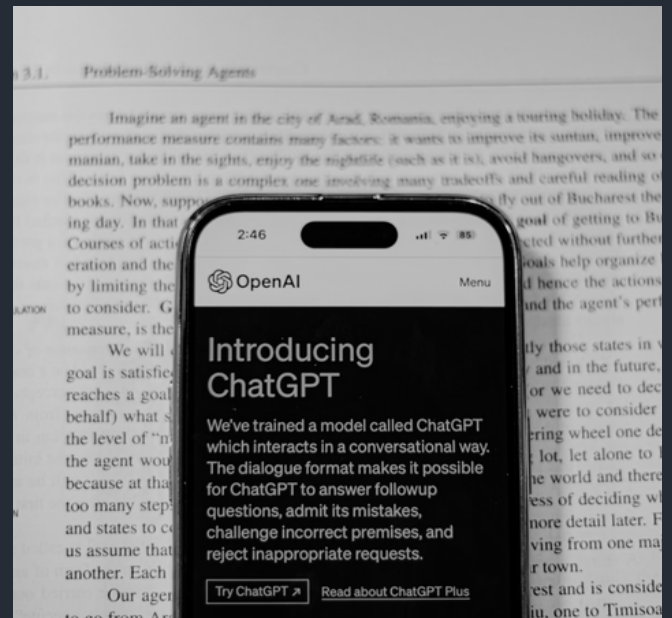


What is AI offering for teachers?

AI is not going to take away teachers' jobs. Instead, teachers could use AI to automate tasks and maximize their time when interacting with students. By creating virtual teaching assistants, frequent questions can be addressed by a chatbot assistant, freeing teachers' time.

Teachers can also benefit from AI by automating routines, like grading assignments. Although AI is currently limited to evaluating only multiple-choice tests, it has the potential to be much more powerful when GTP-4 is made available.

Online education platforms already make use of AI to apply adaptive learning, delivering the right content, at the right time and in the best way for each student. At schools this same concept can be utilized, allowing teachers to identify students' abilities and interests, and providing the best method for them to learn.



What is AI offering to students?

Students can benefit from Chatbots which can provide instant answers to simple questions 24/7, regardless of the teacher's availability.

AI can help students with personalized self-assessments, identifying strengths and shortcomings. This way, students can focus their time on studying what they need to improve and increase their efficiency.

Online learning is a major revolution, which is allowing students to choose courses and institutions available anywhere, removing distance and schedule barriers. In online platforms, AI helps by offering assessments that are adaptable, fast grading, accessibility services, and even translation that is automated.³

The future for AI in education

The United States Office of Educational Technology is working to develop policies and supports focused on the effective, safe, and fair use of AI-enabled educational technology. Other nations are also pursuing to create regulations for the use of AI, but it may take years until we see official regulations that are globally applicable.

While there is no doubt that AI has great potential in the field of education, it is important to note that there are also potential challenges and ethical considerations that need to be addressed. For example, there are concerns about privacy and data security, and bias in AI algorithms. As AI continues to evolve, it will be important to consider these issues and work to ensure AI is used in ways that are beneficial to both students and teachers.

1. Abhishek, K. (2022, May 10). Introduction to artificial intelligence, from <https://www.red-gate.com/simple-talk/development/data-science-development/introduction-to-artificial-intelligence/#:~:text=Artificial%20intelligence%20dates%20back%20to,where%20allowed%20to%20use%20an>

2. Anyoha, R. (2017, August 28). The history of artificial intelligence, from <https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/>

3. Tinka. (2023, February 3). How AI is transforming the education industry - for students and teachers alike, from <https://www.trinka.ai/blog/how-ai-is-transforming-the-education-industry-for-students-and-teachers-alike/>

