

Essay – Artificial Intelligence (AI) in Academia

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In this essay, we will attempt to explain the use of artificial intelligence (AI) in academic education and whether it can benefit or reduce students' critical analysis skills.

The concept of artificial intelligence was created by John McCarthy, a professor at Dartmouth College, in 1956 (University of Iowa Education Blog, 2024).

We could say that artificial intelligence functions like a brain with the ability to memorize large amounts of data. Technology specialists input this data, which can then be retrieved to provide possible solutions to various problems for anyone with access to a computer and the knowledge to use it.

Since then, many years have passed, and as technology has evolved, it has also influenced the development of artificial intelligence, creating new models of use for both students and professors, such as ChatGPT.

This development has made artificial intelligence more flexible for both parties.

Modern academic studies require good knowledge and use of technology, including computers, social media platforms (Facebook, Instagram, Twitter), and, of course, artificial intelligence.

Through AI, students can share information they have obtained from fellow students or through their own research. Additionally, for students facing language barriers in understanding their courses, AI can help them better comprehend each unit being taught.

The preparation of assignments, whether laboratory-based (e.g., experiments) or theoretical, is facilitated by AI, as students have the opportunity to study or even watch how an experiment is conducted. In theoretical assignments, they can write an essay on a scientific topic, such as critical analysis in today's society.

Moreover, presenting research or assignments becomes easier with the use of audiovisual tools provided by AI, (Lam, 2024).

AI can also help eliminate grammatical errors, such as syntax, spelling, and punctuation, making assignments more academically polished.

All of the above allow students to have more free time for socialization, such as participating in sports teams, entertainment, meeting with friends, and generally

engaging in activities that bring them joy, without spending excessive time completing and presenting assignments.

From the professors' perspective, AI can reduce bureaucracy. For example, instead of printing exercises to distribute to students, they can dictate them, have AI transcribe them, and send them via email.

Additionally, professors can easily search AI for the latest developments and announcements related to their subject, providing students with more specialized knowledge.

Lesson presentation and organization become more structured. The focus remains on the core material, without deviating into unrelated topics.

Presentations can incorporate audiovisual media, such as sound, images, text, music, and subtitles, making it easier for students with learning difficulties to follow along.

Professors will also have more free time and will be able to assess students' knowledge levels through AI-generated diagrams. This will allow them to adjust their teaching methods and identify students who need additional support, (Shulman, 2024).

By discussing with students, professors can refine or simplify their lectures to ensure they are understood by all.

However, there is a risk of reduced critical thinking since most solutions can simply appear on a computer screen, ready for use.

According with (Perry & Turner Lee, 2019), furthermore, emotions play a lesser role, as ready-made solutions are based solely on data and rules, without considering whether something should be said or critically analyzed, (Paulson, 2024).

Another issue is that AI is not accessible to all students due to financial constraints. This results in educational inequality, creating two tiers of students: those who can advance professionally faster and those who must invest more time to acquire the

same knowledge. As well, AI will be proactive and our racism in education, if we don't be careful, (Kazmi, 2024)

Conclusion

Artificial intelligence, as a creation of the human mind, offers both advantages and disadvantages for students and professors alike. It provides more free time and facilitates quick answers to questions, but at the same time, it reduces critical thinking. Therefore, its correct and balanced use is essential.

References

1 Kazmi, A. (2024) 'Can AI transform education?', *Gates Foundation Blog*, 11 September. Available at:
<https://www.gatesfoundation.org/ideas/articles/ai-tools-education-technology>,
(Accessed: 11 February 2025).

2 Lam, A.W (2024), Embracing AI in Education, A free Publication from the creators of the Teaching Professor, Available at:
<https://www.facultyfocus.com/articles/teaching-with-technology-articles/embracing-ai-in-education/>, (Accessed: 11/02/2025).

3 Paulson, E. (2024) 'Critical thinking with AI: 3 approaches', *CONESTOGA, Teaching and Learning*, Last modified 5 December. Available at:
<https://tlconestoga.ca/critical-thinking-with-ai-3-approaches/>, (Accessed: 11 February 2025).

4 Perry, A.M. and Turner Lee, N. (2019) 'AI is coming to schools, and if we're not careful, so will its biases'. *The Hechinger Report*, 26 September. Available at: <https://www.hechingerreport.org> (Accessed: 11 February 2025).

5 Shulman, A. (2024) 'AI in education: How artificial intelligence can empower teachers & students', *Industry News*, 23 January. Available at: <https://teachingtomorrow.co.uk/news/ai-in-education-how-artificial-intelligence-can-empower-teachers-students/>, (Accessed: 11 February 2025).

6 University of Iowa Education Blog (2024) 'The role of AI in modern education', *University of Iowa Education Blog*, 27 August, 08:32 PM. Available at: <https://onlineprograms.education.uiowa.edu/blog/role-of-ai-in-modern-education>, (Accessed: 11 February 2025).

Notice : In this essay i used AI to fix my grammar, and syntax errors.