

Name

Class

Date

The Mess AI Has Created for Education

AI tools have brought certain benefits to education. They have also caused much controversy in the educational system. Currently, it does seem likely that education will drastically improve with the rise of AI tools because the harms of AI tools outweigh the benefits. This essay is dedicated to discussing the detriments that AI tools have brought, including their stifling effects on students' divergent thinking, the undermining of academic integrity, the inaccurate AI detection that puts students at risk of being wrongly accused, and the lack of a more cemented learning process compared to traditional learning.

While artificial intelligence, particularly ChatGPT, may help both educators and students in certain stages of their work, over-reliance on it can be detrimental to the teaching quality and learning outcome. For students, utilizing ChatGPT in the initial brainstorming stage of an academic task, such as coming up with potential subtopics for an essay, can be helpful in terms of generating useful and practical ideas. However, Habib et al. (2024) suggest that ChatGPT "is best utilized for fluency and elaboration during divergent thinking, while flexibility and originality are best augmented by human creative and critical analysis" not only because ChatGPT is often limited in its creativity and only provides generic and practical answers to the prompt, but also because students relying on ChatGPT for answers can be detrimental to their

creativity and divergent thinking (i.e., the ability to generate ideas). In other words, it is in students' best interest to use AI such as ChatGPT to streamline, manage, and iterate their thoughts and ideas rather than relying on AI to come up with ideas because over-reliance stifles their divergent thinking.

Since the inception of recent AI technology, instructors have also been drawn to the use of it both within and outside classrooms (Cardona et al., 2023). With the diversity of types of AI available, instructors can use it for lesson planning, grading assignments, and a wide range of other tasks. Nevertheless, past research has pointed out that AI can potentially depersonalize the instruction that involves real-time teacher-student interaction and teachers' sui generis lesson preparations and feedback, thus decreasing the teaching quality and learning outcome altogether (Karan & Angadi, 2024). More specifically, teachers not using AI for lesson planning are able to prepare their lessons in accordance with the classes' aptitude, idiosyncrasy, and other special needs, all of which are difficult to attend to by using current AI. Besides, teachers preparing lectures or lessons on their own can utilize their own experience or even incorporate self-disclosure to make them more interesting and having a unique touch; these things are not as achievable when using AI. In terms of grading using AI, AI's often generic answer, though can be constructive, ultimately loses the personality that is seen in feedback given by humans.

It is also worth a moment's attention that AI can potentially undermine academic integrity. Actually, this is already happening as numerous students have acknowledged using AI to write their essays or solve math problems in an unethical

manner, according to a survey done by BestColleges suggesting “56% of college students have used AI on assignments or exams” (Nam, 2023). Despite the efforts to encourage and enforce academic honesty, there are always students who will try to circumvent honest working by one way or another, so the emergence of AI provides extra opportunities to these students in addition to traditional methods of plagiarism and cheating. It may also serve as an temptation for those who have not engaged in dishonest academic behaviors before. Moreover, using AI in an unethical manner not only puts the learning and academic outcome of cheaters at risk, but also contributes to an unfair learning environment because students who write essays and solve homework problems without AI may not perform better than those who use AI, despite the fact that these honest students may have put in more time and effort comparatively.

Interestingly, the advent of AI has sparked a series of controversies in the educational system. It has been widely known to both students and instructors that universities can use software, including Turnitin, to detect if the work submitted by students was written by AI. As a result, many students are sharing strategies online on how to pass AI detection, attaining a passing or higher grade without being accused of using AI (Topinka, 2024). This in turn has caused an even stricter attitude among certain instructors toward unethical AI usage. However, AI detection tools such as Turnitin are not always reliable. There have been cases in which students were falsely accused of using AI (Fowler, 2023). There have also been cases where the falsely accused students were put on academic probation for something they did not do

(Settembre, 2024). Consequently, many university professors expressed that it is becoming increasingly difficult for them to judge whether the submitted work is done genuinely by the student or generated by AI (Topinka, 2024). Passing AI detection sometimes only requires changing certain words, phrases, and sentence structures or using software specially designed for decreasing or eliminating AI score. These techniques make essays sound more human-like and most definitely capable of passing the radar in a large class where the instructor is not familiar with individual student's writing style and level. Thus, the advent of AI has created controversies that disrupt the academic well-being of students, the trust between students and teachers, as well as the overall dynamic of completing academic tasks, especially essays. Until the AI detection tool becomes perfect at its job, if that will ever be the case, given the large number of companies producing software bypassing AI detector, this mess will continue and pose detrimental effects to those being falsely accused while those who successfully manipulate the system cheat with impunity.

Based on the aforementioned arguments, it is unlikely that the rise of AI will help education drastically improve, at least in the near future. AI tools can be harmful for students's divergent thinking and creativity, potentially depersonalize teacher-student interaction, undermine academic integrity, and cause controversies that put students at risk of being wrongly accused of using AI. It may be argued that AI tools enhance efficiency and that their database and reasoning capabilities can outperform humans and bring benefits, but it is also crucial to be mindful that learning is a scaffolding, life-long process in which a person acquires knowledge and develops understanding

in an immersive fashion. If we all just base our judgment on and acquire knowledge through AI, the learning is undermined. For example, when a student tries to understand a psychological theory, he or she, before the advent of AI, reads the textbook and related reading materials, searches for information online, discusses with peers, consults the professor, and may even use real-world experiences to reason and cement the understanding. With AI, this psychology theory is explained in several bullet points and paragraphs. Then, the student memorizes the concept. Meanwhile, all the remaining processes, such as reading recommended readings and discussing with peers, are ignored. In other words, the learning can be more efficient using AI, but, at the same time, the student misses the opportunity for a more well-rounded and comprehensive learning process that can truly cement the knowledge and understanding.

In conclusion, the current landscape of AI tools and their interaction with education does not indicate reciprocity nor that education will drastically improve with AI tools. Given AI tools' ability to undermine academic integrity, stifle creativity, and cause students to be falsely accused of using AI to cheat, AI tools need to undergo more advanced developments and be harnessed in a way that mitigates these risks.

References

- Cardona, M. A., Rodriguez, R. J., & Ishmael, K. (2023). *Artificial Intelligence and the Future of Teaching and Learning Insights and Recommendations*. Office of Educational Technology.
<https://www2.ed.gov/documents/ai-report/ai-report.pdf>
- Fowler, G. A. (2023, April 3). Analysis | We tested a new ChatGPT-detector for teachers. It flagged an innocent student. *Washington Post*.
<https://www.washingtonpost.com/technology/2023/04/01/chatgpt-cheating-detection-turnitin/>
- Habib, S., Vogel, T., Thorne, E., & Xiao, A. (2023). How Does Generative Artificial Intelligence Impact Student Creativity? *Journal of Creativity*, 34(1), 100072. <https://doi.org/10.1016/j.yjoc.2023.100072>
- Karan, B., & Angadi, G. R. (2024). Potential Risks of Artificial Intelligence Integration into School Education: A Systematic Review. *Bulletin of Science, Technology & Society*, 43(3-4). <https://doi.org/10.1177/02704676231224705>
- Nam, J. (2023, November 22). *56% of College Students Have Used AI on Assignments or Exams* | BestColleges. www.bestcolleges.com.
<https://www.bestcolleges.com/research/most-college-students-have-used-ai-survey/>
- Settembre, J. (2024, February 21). *Student put on probation for using Grammarly: "AI violation."* New York Post.

<https://nypost.com/2024/02/21/tech/student-put-on-probation-for-using-grammarly-ai-violation/>

Topinka, R. (2024, February 13). The Software Says My Student Cheated Using AI.

They Say They're innocent. Who Do I believe? *The Guardian*.

<https://www.theguardian.com/commentisfree/2024/feb/13/software-student-cheated-combat-ai>