

RESEARCH ARTICLE

Does Artificial Intelligence Cause More Harm than Good in Schools?

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ABSTRACT –The integration of artificial intelligence (AI) in schools presents significant challenges and risks requiring responsible and ethical management. Despite warnings from tech leaders, major corporations push AI adoption in schools, leading to privacy violations, biased algorithms and curricular misinformation. Generative AI, though enhancing resources, risks disseminating false information. Biased AI models perpetuate inequalities, especially for marginalized groups. The financial burdens of AI implementation worsen budget constraints, and AI-driven surveillance raises privacy concerns. Governance must prioritize ethics and student rights, establishing transparent frameworks to prevent commercial interests from overshadowing educational goals. This editorial suggests halting AI adoption until comprehensive legislation safeguards against risks. Stakeholders should prioritize responsible AI development, stressing transparency and accountability. Collaboration between AI developers and educators is essential to ensuring AI serves students and society responsibly.

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INTRODUCTION

Big names in digital technology warned in the spring of 2023 that artificial intelligence (AI) posed profound risks to society and humanity. They wanted to control its growth and stop using it in new ways. But at the same time, big names like Google, Microsoft, Meta, and Amazon rushed to add AI to their platforms and avoid being regulated (Mejias & Couldry, 2024). The tech industry stepped up its marketing, and soon the mainstream media was full of industry talk and rumors about AI's pros and cons. All the bold predictions, self-serving business practices, over-the-top marketing promises and uncritical news coverage have made it harder to see the immediate risks that come with AI's fast adoption. Given this background, it's not surprising that AI's supposed ability to improve teaching and learning has been the main topic of conversation when talking about how it affects education.

Teachers and school managers already use a variety of digital tools to teach and run their schools. Their use has made it harder for schools to make decisions, violated students' privacy rights, and let outsiders use student data for non-school activities. If there isn't good public monitoring, putting AI systems and apps to use in schools is likely to make these problems worse and make many more.

With the integration of AI into existing educational platforms and applications, teachers are currently confronted with a manageable challenge rather than an apocalyptic scenario (Rudolph et al., 2023). The real risk is that AI models and applications will get mixed up in school life in ways that let private companies have more control over the structure and content of public education, make surveillance more effective, and make biases and unfair situations worse (Lambert & Stevens, 2023; Dempere et al., 2023; Dunleavy & Margetts, 2023). Academics have been working on AI models for use in schools for quite some time now. Today, however, businesses are pushing AI (and the risks that come with it) into schools (Attard-Frost & Walters, 2023; Kanbach et al., 2023; Davenport & Mittal, 2023).

Implementing AI in schools is a logical response to political, economic, and ideological efforts to privatize and commercialize education. Considering this rationale, it is unsurprising that businesses, private researchers and governments are advocating for the adoption of AI, despite its recognized hazards, in the absence of established laws and regulations that provide transparency and public oversight of AI systems. This places significant burden on educational institutions to perceive AI as a clear enhancement to the current methods of operation.

Computer scientists and software engineers mostly focus on technical engineering matters, but business leaders and investors prioritize financial gain over the collective welfare. Nevertheless, teachers are being expected to have faith in the notion that these individuals, who possess limited knowledge about education and stand to profit from the implementation of AI in schools, are the most competent individuals to conceive and guide the transformation in education.

ISSUES AND CHALLENGES

Although AI applications are often presented as answers to educational concerns, with the potential to improve learning, instruction, and administrative processes, it is important to recognize that these applications are subject to the same limitations, problems, and risks that affect the AI models that drive them.

Curricular Misinformation

A key challenge of AI for teachers is that generative AI is trained to make text that seems real even if it contains fake information (Baidoo-Anu & Ansah, 2023). Applications that use generative AI to help teachers plan lessons and make resources, for instance, could give students a lot of wrong or confusing information. This issue is not likely to be fixed because, as automatic content spreads across the web, the data that these programs use may get worse. The risk is that AI-generated text will take over the information environment, making it hard to tell which online sources are reliable or trustworthy. This means that online sources cannot be used for education or can give false information.

Bias and Discrimination

AI models are biased because they are taught on either internet data or data from the past. These biases can show up in their educational uses (Rozado, 2023). For example, when ChatGPT came out in November 2022, teachers were worried that students would cheat on their written tasks (Adeshola & Adepoju, 2023). This led edtech companies to create AI detectors that would automatically catch cheaters. Turnitin is already used all over the world to find plagiarized student work. In early 2023, the company that made it added AI detection features, saying that they would be able to spot unique signs of text that were created by AI. But separate studies have shown that these AI detectors often get it wrong, which leads to a lot of false charges of cheating. People who don't speak English as their first language are more likely to be accused of these things because they tend to write in simpler lines that AI sees as suspicious (Hu, 2023).

Rising Expenses

Due to the high expenses associated with running AI, schools will need to allocate funds to cover the operational costs of a growing range of pedagogic and administrative AI applications. The notion that AI might potentially reduce staffing expenses and save money for schools is likely deceptive, as schools will certainly incur expensive charges for using AI resources (Păvăloaia & Necula, 2023). Instead of accumulating savings, administrative apps are more inclined to transfer existing funds to dominant technology providers.

Khanmigo and Google Classroom are already good examples of how this works. Khan Academy charges \$60 per student per year for users to use Khanmigo, citing the high computing costs of OpenAI's GPT-4 as the reason for the fee. Similarly, the users must pay for Google Classroom's AI upgrades. To use Practice Sets, the latest adaptive learning app, they must switch from the free basic version to a paid version.

Student Privacy Vulnerabilities

People who want to use AI in education often talk about how efficient data-driven management systems are. However, these methods also present privacy hazards that have the potential to harm students. This is because AI models are made from very large amounts of data that can be used to profile, compare and rate people. Based on these statistical dossiers of their personal lives, people may be subject to choices that are unfair. Using datasets with examples of past bias and discrimination is a big risk for digital technology in general and the privacy-invasive model of AI in particular because it can reinforce and worsen forms of inequality in education (Blackmon & Major, 2023). For example, if a big data set shows that historically, some disadvantaged groups have not done well, then a software application might be biased against people from those groups in the future, marking them as "at risk" and making it harder for them to get information and resources.

CONCLUSION AND FUTURE CONSIDERATIONS

The swift development of AI applications for educational institutions underscores the need to prioritize ethics, student rights, and social responsibility in their construction. Responsible AI development entails creating products that are secure and reliable, with the intention of benefiting individuals, communities, and society as a whole, while also minimizing potential negative consequences. Currently, there is limited evidence that education applications sufficiently address these values. Regrettably, academic researchers in the field of AI in Education have often disregarded these issues or assigned the responsibility of addressing them to the educational technology sector and policy institutes. The presence of complacency, coupled with the significant financial resources and influence wielded by commercial entities, allows commercial objectives to take precedence over educational goals in shaping the advancement of AI. This also serves the political interests that advocate for extensive testing and surveillance in schools.

Responsible governance necessitates that AI development businesses make a commitment to transparent and responsible product design, as well as actively monitoring, comprehending, and minimizing the ongoing effects of AI in different situations. A matter of specific interest is the process of automating judgments that can result in outcomes that are both irreversible and have significant repercussions. Currently, there are ongoing developments in technologies that aim to discern emotions in order to determine if a person is being dishonest or engaging in deceitful behaviour. Although

these technologies are inherently imprecise, an erroneous determination that a student has cheated or that a witness is lying could have severe repercussions on their lives. Implementing responsible AI governance could potentially result in the postponement or complete cessation of the development of these technologies.

When it comes to education, responsible governance of AI requires a much greater level of dedication than the basic principles of responsible development set forth by the industry. Additionally, it necessitates expensive and continuous surveillance of the impacts of AI in educational settings. In order to prevent the extensive risks associated with the rushed integration of AI in educational and administrative systems, the researcher advises school leaders to temporarily halt the adoption of AI applications. This pause should remain in effect until policymakers have sufficient time to thoroughly educate themselves on AI and develop legislation and policies that guarantee efficient public supervision and regulation of its use in schools. AI development for schools should strictly adhere to responsible AI frameworks and be carried out in collaboration with educational institutions.

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