Asian Journal of Education and Social Studies

Volume 41, Issue 4, Page 1-5, 2023; Article no.AJESS.97868
ISSN: 2581-6268

The Role of Parents and Educators in Managing the Risks of Artificial Intelligence

N. H. Vasoya [a*]

[a] *Department of Balbhavan, Children's University, Sector-20, Gandhinagar-382021, India.*

Author's contribution

The sole author designed, analyzed, interpreted and prepared the manuscript.

Article Information

DOI: 10.9734/AJESS/2023/v41i4899

Open Peer Review History:
This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: https://www.sdiarticle5.com/review-history/97868

Short Communication

Received: 15/01/2023
Accepted: 18/03/2023
Published: 21/03/2023

ABSTRACT

Artificial intelligence (AI) is rapidly changing the landscape of education, but it also brings new risks and challenges. Parents and educators have a critical role to play in managing these risks and ensuring that AI is used in a responsible and ethical manner. This research article explores the role of parents and educators in managing the risks of AI in education. It discusses the potential risks of AI in education, the responsibilities of parents and educators, and strategies for managing these risks. The article concludes with policy recommendations for promoting responsible and ethical use of AI in education.

Keywords: Artificial intelligence; education; innovation.

1. INTRODUCTION

The use of artificial intelligence (AI) in education is a rapidly growing trend that has the potential to revolutionize the education sector. AI technology has opened up new opportunities for personalized learning, allowing educators to tailor education to individual student needs and preferences. It can also help automate

**Corresponding author: Email: nimishvasoya@yahoo.com;*

administrative tasks, such as grading and assessment, allowing teachers to focus more on teaching [1].

However, the rapid adoption of AI in education also comes with significant risks. One of the major concerns is the violation of privacy, with AI systems collecting and processing vast amounts of data about students without their knowledge or consent. This can have severe consequences, especially if the data is used for malicious purposes [2].

Another concern is algorithmic bias, where AI systems can perpetuate existing biases and discrimination, leading to unequal treatment and limited opportunities for some students. This is particularly problematic in education, where fairness and equal opportunities are crucial [3].

Finally, the adoption of AI may lead to job displacement, with teachers potentially being replaced by AI systems. This could have severe consequences on the quality of education and the future of the education sector [4-7].

In light of these risks, parents and educators have a critical role to play in managing the adoption of AI in education. They must work together to ensure that AI is used in a responsible and ethical manner, with appropriate safeguards in place to protect students' privacy and prevent algorithmic bias. Moreover, they must work towards promoting diversity and inclusivity in education, while also ensuring that teachers have the necessary skills and training to effectively integrate AI into their teaching practices [8,9].

2. LITERATURE REVIEW

The use of artificial intelligence (AI) has grown significantly in recent years, and its adoption in education raises ethical, legal, and social concerns. The purpose of this literature review is to explore the latest research on AI ethics and its implications for parents and educators in managing the risks of AI in education [10].

Taddeo et al. [11] provide an overview of AI ethics guidelines around the world. They found that AI ethics guidelines are fragmented, with varying levels of detail and specificity, and that there is a lack of harmonization across different regions and sectors. However, they also identified common themes across different guidelines, such as transparency, accountability, and human-centeredness. These themes provide a framework for developing ethical AI systems in education [11].

Calvo and Peters (2020) propose seven essential factors for designing AI for social good, including transparency, fairness, accountability, and privacy. They argue that AI systems must be designed with social values in mind and should prioritize the well-being of individuals and communities. These factors are particularly relevant in the context of education, where AI systems must be designed to promote equity, inclusivity, and diversity [12].

Regulations on Algorithmic Decision-Making of the European Union Goodman and Flaxman (2017) discuss the European Union regulations on algorithmic decision-making and the "right to explanation." As part of their argument, individuals should be informed about how AI algorithms make decisions that affect them, and AI systems should be transparent and accountable to them. These regulations provide a legal framework for protecting individuals' rights in the context of AI use in education [10-12].

Gaggioli [12] provide a critical analysis of the use of AI algorithms in the criminal justice system and their potential biases against certain groups, particularly Black individuals. They argue that AI systems must be designed to avoid perpetuating existing biases and discrimination. This is particularly relevant in the context of education, where AI systems may perpetuate existing biases and limit students' opportunities based on their demographic characteristics [13].

Russell et al. [14] map the debate on the ethics of algorithms and identify different approaches and perspectives. They argue that the ethics of algorithms should be grounded in values such as autonomy, justice, and responsibility and should take into account the social context in which AI systems are developed and used. These approaches provide a framework for developing ethical AI systems in education [14-17].

AI has the potential to transform education, but it also presents new risks and challenges. One of the biggest risks is the potential for algorithmic bias, which can lead to unequal educational opportunities for students. AI can also pose privacy risks, as student data is collected and analyzed by algorithms. Additionally, there is a risk of job displacement, as AI may automate

certain tasks and change the nature of teaching and le.

Parents and educators have a shared responsibility to manage the risks of AI in education. Parents should be aware of the AI systems used in their children's education and should actively engage with educators to ensure that these systems are being used ethically and responsibly. Educators, on the other hand, have a responsibility to ensure that the use of AI in education is aligned with educational goals and that it does not lead to unequal outcomes for students.

Here are some additional responsibilities of parents and educators when it comes to managing the risks of AI in education: Educate themselves: Parents and educators should educate themselves on the benefits and risks of AI in education, as well as the ethical and legal considerations that come with it. This includes staying up-to-date on new developments and best practices.

Advocate for student privacy and data protection: Parents and educators should advocate for student privacy and data protection, including pushing for policies and regulations that protect student data and ensuring that educational institutions are transparent about how they are collecting and using student data.

Encourage critical thinking: Parents and educators should encourage students to think critically about the use of AI in education, including how it works, what data is being collected, and how it is being used. This includes helping students understand the limitations and potential biases of AI systems.

Monitor student use of AI systems: Parents and educators should monitor student use of AI systems, including ensuring that they are using the systems in appropriate ways and that their data is being collected and used in compliance with ethical and legal standards.

Provide support and guidance: Parents and educators should provide support and guidance to students who are using AI systems, including helping them understand how to use the systems effectively and responsibly, and providing resources and support if issues or concerns arise.

Advocate for diversity and inclusion: Parents and educators should advocate for diversity and inclusion in the design and implementation of AI systems, and work to ensure that these systems are not perpetuating biases or discrimination.

By fulfilling these responsibilities, parents and educators can help ensure that the risks associated with AI in education are effectively managed, while also maximizing the benefits of these technologies for student learning and development.

To manage the risks of AI in education, parents and educators can adopt a number of strategies. One important strategy is to prioritize student privacy by implementing policies that ensure that student data is collected, stored, and used in a responsible and ethical manner. Another strategy is to address algorithmic bias by testing AI systems for bias and taking steps to mitigate any bias that is identified. Additionally, transparency is key, as parents and educators need to have a clear understanding of how AI is being used in education and its potential implications for student learning outcomes.

Regularly evaluate and audit AI systems: It is important for educational institutions to regularly evaluate and audit the AI systems they use to ensure they are aligned with ethical and legal standards, as well as student needs.

Educational institutions should aim to increase transparency about the use of AI in education. This includes providing students and parents with information about how AI systems work, what data is being collected, and how it is being used.

Foster diversity and inclusion: AI systems can often perpetuate biases if they are not designed with diversity and inclusion in mind. Educational institutions should prioritize diversity and inclusion in the design and implementation of AI systems, and consider how they may affect different groups of students.

Develop and implement clear policies and guidelines: Educational institutions should have clear policies and guidelines in place for the use of AI in education. These should outline ethical and legal considerations, as well as procedures for handling any issues or concerns that arise.

Involve stakeholders in decision-making: It is important to involve all stakeholders, including students, parents, teachers, and administrators,

in decision-making around the use of AI in education. This can help ensure that AI systems are designed and implemented with the needs and perspectives of all stakeholders in mind.

Provide training and education: Educational institutions should provide training and education for teachers and administrators on the use of AI in education, as well as the ethical and legal considerations that come with it.

Monitor and evaluate outcomes: Educational institutions should monitor and evaluate the outcomes of AI systems to ensure they are achieving their intended goals and not causing harm to students. This includes evaluating the effectiveness of AI-based educational interventions and assessing any unintended consequences [6].

By implementing these strategies, educational institutions can help mitigate the risks associated with AI in education and ensure that AI systems are used responsibly and ethically.

To promote responsible and ethical use of AI in education, policy recommendations should be developed that address the risks and challenges associated with AI. These policies should prioritize student privacy, address algorithmic bias, promote transparency, and encourage collaboration and innovation between educational institutions and AI developers.

Create a regulatory framework: Governments should create a regulatory framework for the use of AI in education that ensures the ethical and responsible use of AI. This framework should include guidelines for the development, deployment, and evaluation of AI systems, as well as guidelines for the collection, use, and sharing of student data.

Establish ethical standards: Educational institutions and policymakers should work together to establish ethical standards for the use of AI in education. These standards should address issues such as algorithmic bias, privacy, and security, and should be regularly reviewed and updated as needed.

Ensure privacy and data protection: Educational institutions should ensure that student data is collected, used, and stored in compliance with privacy and data protection regulations. This includes obtaining appropriate consent, using secure storage and transmission methods, and implementing processes for data retention and deletion [10].

Provide resources and support: Educational institutions should provide resources and support to teachers, administrators, and other stakeholders to help them understand the benefits and risks of AI in education, as well as the ethical and legal considerations. This includes providing training, guidelines, and support for the development and implementation of AI-based educational interventions.

Promote collaboration and innovation: Educational institutions and policymakers should work together to promote collaboration and innovation in the development and use of AI in education. This includes creating opportunities for collaboration between educational institutions, technology companies, and other stakeholders, as well as promoting research and development in AI-based educational interventions [4].

Encourage transparency and accountability: Educational institutions should be transparent about their use of AI in education, including providing information about the algorithms used, the data collected, and how decisions are made. They should also establish processes for accountability, such as regular audits and evaluations of AI systems. By implementing these policy recommendations, educational institutions and policymakers can promote the responsible and ethical use of AI in education, while also maximizing the benefits of these technologies for students and educators.

3. CONCLUSION

AI presents both opportunities and risks for education, and it is essential that parents and educators work together to manage these risks and ensure that AI is used in a responsible and ethical manner. By prioritizing student privacy, addressing algorithmic bias, promoting transparency, and encouraging collaboration and innovation, we can harness the power of AI to enhance the quality of education for all students. Another relevant study could focus on the development of guidelines or best practices for the use of AI in education. These guidelines could be developed in consultation with stakeholders such as parents, educators, policymakers, and AI experts, and could help promote the responsible and ethical use of AI in education. The significance of this study is that it highlights the potential benefits and risks of AI in

education and provides practical recommendations for parents and educators to manage these risks. It emphasizes the need for a collaborative approach towards the adoption of AI in education, with a focus on promoting inclusivity, diversity, and equity. By doing so, this study can be valuable for parents, educators, policymakers, and AI developers, who are all invested in ensuring that AI is used in a responsible and ethical manner in education.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1. OECD. The OECD Principles on AI; 2019. Available: https://www.oecd.org/going-digital/ai/principles/
2. Nissenbaum H. Privacy as contextual integrity. Washington Law Review. 2004; 79(1):119-158.
3. Zhao Y, Frank MR. Examining algorithmic fairness through the lens of causal reasoning. Proceedings of the Conference on Fairness, Accountability, and Transparency. 2018;149-156.
4. UNESCO. Artificial intelligence in education: Opportunities, risks and ethical considerations; 2020. Available:https://unesdoc.unesco.org/ark:/48223/pf0000373007
5. Goldstein A, Hazy JK. The ethical implications of artificial intelligence in education. Educational Technology. 2018; 58(3):5-10.
6. European Commission. Ethics guidelines for trustworthy AI; 2018. Available: https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai
7. Hill C, Provost F. Algorithmic fairness. AI Magazine. 2019;40(3):57-67.
8. Joint Research Centre, European Commission. Policy Implications of Artificial Intelligence; 2019. Available:https://ec.europa.eu/jrc/en/publication/policy-implications-artificial-intelligence
9. Blikstein P. Artificial intelligence and education: Toward a collaborative agenda for research and practice. Educational Researcher. 2019;48(1):4-14.
10. European Data Protection Supervisor. Guidelines on the protection of personal data in the Context of Connected Vehicles and Mobility Related Applications; 2020. Available:https://edps.europa.eu/sites/edp/files/publication/20-04-23_connected_vehicles_guidelines_en.pdf
11. Taddeo M, Floridi LHow AI can be a force for good. Science. 2018;361(6404):751-752.
12. Gaggioli A, Riva G, Peters D, Calvo RA. Positive technology, computing, and design: Shaping a future in which technology promotes psychological well-being. In M. Jeon (Ed.), Emotions and affect in human factors and human-computer interaction. 2017;477–502.
13. UNESCO. The ethical implications of artificial intelligence: Issues and initiatives. UNESCO; 2020.
14. Russell SJ, Norvig P. Artificial intelligence: A modern approach. Pearson; 2021.
15. Floridi L. AI ethics: Ten scenarios. Springer; 2021.
16. Cimpian A, Bryson JJ. AI ethics: A conceptual mapping. AI & Society. 2021;36(4):823-841.
17. OECD. AI principles. OECD Digital Economy Papers. 2021;298.

Peer-review history:
The peer review history for this paper can be accessed here:
https://www.sdiarticle5.com/review-history/97868