

Review of: "The Future of Education and Human Development in The Era of Generative Pre-Trained Transformer (GPT) Models"

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Potential competing interests: No potential competing interests to declare.

Peer Review Report: "The Future of Education and Human Development in The Era of Generative Pre-Trained Transformer (GPT) Models"

General Assessment:

The article "The Future of Education and Human Development in The Era of Generative Pre-Trained Transformer (GPT) Models" by Deepu Kurian, Amin Alizadeh, and Courtney M. Peebles provides a comprehensive overview of the impact and implications of Generative Pre-trained Transformer (GPT) models in the education sector. The article thoroughly discusses the potential benefits and challenges of AI in education, along with necessary ethical considerations.

Specific Comments:

Abstract: The abstract succinctly sets the stage for the article, highlighting the need for careful policy and ethical considerations in the adoption of AI technologies like GPT models in education.

Introduction: The introduction effectively situates AI and GPT models within the current technological landscape. However, it could benefit from a more direct linkage to educational applications earlier in the section. Also the authors should take into consideration the latest update of ChatGPT especially in model GPT-4 with Dall-E and the data analysis extension (this happened around 3 to 4 weeks ago).

Debate on Benefits: This section discusses the positive impact of AI in education, particularly in customizing learning experiences. The acknowledgment of AI's limitations is balanced, though the addition of specific examples or case studies could strengthen the arguments.

Challenges and Ethical Implications: The discussion around the ethical challenges and risks associated with AI in education is comprehensive and well-articulated. Integrating references to existing pedagogical theories or practices that may be influenced by these technologies would enhance this section. You should highlight that uptodate, still, there is no a proper ethical guidelines in the use of AI chatbots.

Concluding Thoughts: The conclusion effectively summarise the article's main points, emphasizing AI's dual potential as an enabler and disruptor in education. The encouragement for more balanced research and AI integration is aptly placed.

Recommendations for Improvement:

Incorporate Additional References: To enhance the scientific rigor of the manuscript, it is recommended that the authors review and consider integrating insights from related works, such as those found in the following references:

References:

1. <https://pubmed.ncbi.nlm.nih.gov/37077800/>
2. <https://pubmed.ncbi.nlm.nih.gov/37662707/>
3. Dergaa I, Zakhama L, Dziri C, Ben Saad H. Enhancing scholarly discourse in the age of artificial intelligence: A guided approach to effective peer review process. *Tunis Med.* 2023;101(10):721-726. Available from: <https://www.latusiemedicale.com/index.php/tunismed/article/view/4672>
4. https://www.researchgate.net/publication/375744062_ChatGPT_is_not_ready_yet_for_use_in_providing_mental_health_assessment_and_interventions

These references, while not mandatory for citation, could enrich the content of the article and provide additional perspectives on the topic.

Enhance Connection to Pedagogical Theories: More direct references to established pedagogical theories and how AI tools like GPT models align with or challenge these theories would be beneficial.

Include Practical Examples: Real-world examples or case studies demonstrating the impact of GPT models in educational settings would provide practical insights.

Clarify Technical Jargon: Simplify or further explain technical AI terminology for readers not deeply familiar with AI.

Expand on Policy and Ethical Frameworks: Delve deeper into specific policy changes and ethical frameworks needed for safe AI integration in education.

Address a Range of Educational Contexts: Discuss how AI tools like GPT models could be utilized in different educational settings, such as K-12, higher education, and professional development.

Emphasize Data Privacy and Security: Focus more on addressing data privacy and security concerns in educational applications of AI.

Overall Recommendation: Minor Revision

The manuscript is insightful, contributing significantly to the discussion on AI in education. Minor revisions, especially in integrating additional perspectives from suggested references and bridging theoretical and practical aspects, would enhance the paper's value.

Conclusion:

This article provides a critical and comprehensive analysis of the role of GPT models in education. It successfully navigates the complex interplay of AI's potential benefits and inherent risks in the educational sector. With the recommended minor revisions, particularly incorporating additional literature and connecting more directly to pedagogical practices, the manuscript will serve as a valuable contribution to the field.