BMES BIOMEDICAL ENGINEERING SOCIETY

Using AI Tools in Writing Peer Review Reports: Should Academic Journals Embrace the Use of ChatGPT?

Manuel B. Garcia[1,2]

Abstract

This letter highlights a pressing issue regarding the absence of established editorial policies for the utilization of AI tools (e.g., ChatGPT) in the peer review process. The increasing adoption of AI tools in academic publishing necessitates the formulation of standardized guidelines to ensure fairness, transparency, and accountability. Without clear editorial policies, there is a threat of compromising the integrity of the peer review process and undermining the credibility of academic publications. Urgent attention is needed to address this gap and establish robust protocols that govern the use of AI tools in peer review.

Keywords Artificial intelligence · Peer review · Editorial policies · ChatGPT

In their letters to the editor, Teixeira da Silva [3] and Tang [2] astutely raised critical concerns regarding the attribution of artificial intelligence (AI) tools (e.g., ChatGPT) as authors and their uses in creating manuscript content, respectively. They highlighted the necessity of updated editorial policies that explicitly require disclosure of AI usage in manuscripts. Although the scientific community swiftly addressed the issue of AI-driven authorship and AI-generated content (e.g., attribution and declaration), the same level of attention has not been given to the peer review process. Given their willingness to accept papers containing AI-generated content under specific conditions [2], should academic journals also permit reviewers to utilize AI tools in writing their reports? Could leveraging these AI tools address the many challenges (e.g., reviewer availability, timely evaluations, and a growing number of submissions) that hinder timely research dissemination?

First, I would like to acknowledge that the expertise and judgment of human reviewers cannot be replicated by AI

tools. The International Committee of Medical Journal Editors (ICMJE) even warned reviewers that "AI can generate authoritative-sounding output that can be incorrect, incomplete, or biased". Despite this cautionary note, preliminary studies [1] suggest that using AI tools in various writing tasks holds promise for improving productivity. For instance, reviewers can potentially generate a well-articulated report by feeding their jotted notes to AI tools. Having the opportunity to streamline the review process may be sufficient to encourage reviewers to accept invitations. This is particularly significant considering that reviewers often decline due to time constraints and an overwhelming workload. With AI tools at their disposal, reviewers may also be able to help academic journals in managing the increasing manuscript submissions by submitting timely evaluations.

Despite these potential benefits, it is crucial to acknowledge that guidelines and protocols are not currently in place to regulate the use of AI tools in the peer review process. As academic journals consider embracing the use of ChatGPT, a contentious debate emerges: Do we risk compromising the traditional human-driven peer review process in pursuit of efficiency and innovation, or do we prioritize the preservation of established standards and human expertise? I say that we strike a delicate balance between leveraging AI tools for enhancing productivity and maintaining the rigorous standards and integrity of the academic publishing system.

Associate Editor Stefan M. Duma oversaw the review of this article.

✉ Manuel B. Garcia
mbgarcia@feutech.edu.ph

1 Educational Innovation and Technology Hub, FEU Institute of Technology, Manila, Philippines

2 College of Education, University of the Philippines Diliman, Quezon City, Philippines

Declarations

Competing interests The author declares no conflict of interest.

Ethical Approval Ethical approval is not applicable for this article.

References

1. Hosseini, M., and S. P. J. M. Horbach. Fighting reviewer fatigue or amplifying bias? Considerations and recommendations for use of ChatGPT and other large language models in scholarly peer review. *Res. Integrity Peer Rev.* 8(1):1–8, 2023. https://doi.org/10.1186/s41073-023-00133-5.
2. Tang, G. Academic journals should clarify the proportion of NLP-generated content in papers. *Acc. Res.* 2023. https://doi.org/10.1080/08989621.2023.2180359.
3. Teixeira da Silva, J. A. ChatGPT: detection in academic journals is editors' and publishers' responsibilities. *Ann. Biomed. Eng.* 2023. https://doi.org/10.1007/s10439-023-03247-5.