

Artificial Intelligence in Academic Publishing: Expectations for Authors and Reviewers in Frontier Preventive Medicine

The Editorial Team, Frontiers in Preventive Medicine

Abstract

With the rapid proliferation of generative artificial intelligence (GenAI) and large language models (LLM), the landscape of scientific publishing is undergoing profound changes. As a leading journal in preventive medicine, we embrace technological advancements to enhance research efficiency, but we must reaffirm the core principle of scientific integrity. This editorial clearly defines our policies and expectations regarding the use of artificial intelligence in manuscript preparation, writing, and peer review, aiming to balance the utilization of innovative tools with the adherence to academic ethics.

Keywords: Artificial Intelligence; Academic Publishing; Preventive Medicine; Ethical Standards

1. Introduction

Preventive medicine is a discipline that heavily relies on data analysis, epidemiological modeling, and interdisciplinary integration. Artificial intelligence (AI) tools have demonstrated enormous potential in processing massive public health datasets, optimizing language expression, and assisting in literature retrieval. However, recent controversies surrounding AI "hallucinations," amplified biases, and copyright ownership have forced the academic community to re-examine the boundary between "author" and "tool."

As guardians of the scientific record, this journal hereby clarifies its position: artificial intelligence is a tool to assist scientific research, and by no means the subject bearing academic responsibility.

2. Expectations for Authors: Transparency and Ultimate Accountability

Based on the guidelines of the International Committee of Medical Journal Editors (ICMJE) and the Committee on Publication Ethics (COPE), this journal sets forth the following core requirements for authors using AI tools:

2.1 AI Does Not Have Authorship

AI tools (such as ChatGPT, Claude, etc.) cannot assume legal or moral responsibility for the research conception, data interpretation, or conclusions, nor can they sign conflict of interest statements or copyright agreements. Therefore, AI programs must not be listed as authors^[1, 2].

2.2 Mandatory Disclosure and Transparency

Authors must maintain complete transparency. If generative AI is used in the research, it must be clearly stated in the "Methods" or "Acknowledgments" section of the manuscript. The statement should include: ①The specific name and version of the tool used (e.g., ChatGPT-4). ②The specific application (e.g., for polishing English abstracts, assisting in code writing, or generating preliminary literature reviews).

2.3 Final Verification Responsibility

Authors bear final responsibility for every word, every citation, and every data point in the manuscript. AI may generate content that sounds plausible but is entirely fictitious (i.e., "illusions"). Authors must: ①Manually verify all AI-generated references to ensure their authenticity. ②Review

the content for algorithmic bias, especially in preventive medicine research involving health differences among different populations^[3].

2.4 Data Privacy and Ethics

Uploading materials involving patient privacy, unpublished epidemiological data, or copyrighted material to public AI platforms is strictly prohibited. Such actions may constitute serious data breaches and ethical violations.

3. Expectations for Reviewers: Confidentiality and Independent Judgment

Peer review is the cornerstone of scientific quality control. Given the penetration of AI technology, we propose the following strict prohibitions and suggestions for reviewers:

3.1 Do not upload manuscripts to AI platforms

Reviewers must strictly abide by confidentiality agreements. Inputting unpublished manuscript content into generative AI tools (even for the purpose of generating review comments or summaries) is equivalent to leaking confidential data to third-party commercial companies, which seriously violates the confidentiality principle of peer review^[4].

3.2 Rely on the critical thinking of human experts

The journal invites you to review manuscripts based on your profound expertise and critical thinking in the field, not just to obtain a fluent summary. Although AI can help check for language errors, the core viewpoints of the review comments, the judgment of scientific logic, and the assessment of innovation must come from the reviewer himself.

3.3 Be wary of traces generated by AI

Reviewers should assist the editorial department in identifying possible signs of AI abuse in the manuscript, such as not only illogical references, stiff and mechanical expressions, or suspected data fabrication.

4. Conclusion

At the forefront of preventive medicine, we are committed to improving human health through scientific evidence. Artificial intelligence can be a powerful tool in our hands, helping us to identify disease patterns more quickly and optimize intervention strategies. However, trust in science is built

on accountability.

We want to reiterate here: technology should serve human judgment, not replace it. Only when authors and reviewers jointly uphold the bottom line of integrity can we ensure that every published study can stand the test of time and truly benefit public health.

References

- [1] International Committee of Medical Journal Editors (ICMJE). (2023). Defining the Role of Authors and Contributors. Retrieved from <http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>
- [2] Committee on Publication Ethics (COPE). (2023). COPE position statement: Authorship and AI tools. Retrieved from <https://publicationethics.org/cope-position-statements/ai-author>
- [3] Zielinski, C. *et al.* (2023) 'Chatbots, generative AI, and scholarly manuscripts: WAME recommendations on chatbots and generative artificial intelligence in relation to scholarly publications', *Current Medical Research and Opinion*, 40(1), pp. 11–13. doi: 10.1080/03007995.2023.2286102.
- [4] National Institutes of Health (NIH). (2023). Notice NOT-OD-23-149: The Use of Generative Artificial Intelligence Technologies is Prohibited for the NIH Peer Review Process.