

Limitations of Using Generative Artificial Intelligence in Writing Scientific Articles: Producing Low-Quality Manuscripts

Mohsen Rezaeian¹

In the editorial of the previous issue of this journal, we addressed two significant limitations regarding the use of generative artificial intelligence (AI) in writing scientific articles (1). The first limitation stems from the fact that if you task a generative AI tool to draft sections of an article, it may generate fabricated references (2). The second limitation relates to the fact that the training data for large language models—which are used by generative AI tools to create content—is likely skewed toward texts produced by scientific institutions in high-income Western countries (3). In this editorial, we will examine another critical limitation: the complex considerations that arise regarding authorship when generative AI tools are used to prepare a manuscript.

According to the International Committee of Medical Journal Editors (ICMJE), to qualify for authorship, an individual must have made substantial contributions to the conception or design of the work, the acquisition, analysis, or interpretation of data, and the drafting of the work or its critical revision for important intellectual content. Furthermore, they must provide final approval of the version to be published and agree to be accountable for all aspects of the work, ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved (4).

When authors ask an AI tool to write sections of their article, they are effectively assigning an authorship role to that tool. However, no AI tool can be held accountable for the accuracy and integrity of the content published in an article. This is particularly of concern given that, as previously mentioned, generative AI tools often produce and cite fabricated sources (5).

For this reason, most scientific journals, including the *Journal of Rafsanjan University of Medical Sciences*, require authors to provide detailed disclosures regarding any use of these tools in the writing of their articles (6). Nevertheless, some highly prestigious journals, such as *Science*, maintain a stricter stance, stating that the use of text generated by generative AI is prohibited for manuscripts submitted to their journal, as such text cannot be considered “original” (7).

Citation: Rezaeian M. Limitations of Using Generative Artificial Intelligence in Writing Scientific Articles: Writing Low-Quality Articles. *J Rafsanjan Univ Med Sci* 2026; 25 (10): 887-8. doi: 10.66224/jrums.25.10.887.

References

1. Rezaeian M. Limitations of using generative artificial intelligence in writing scientific articles: Use of fake citations and tendency towards Western texts J Rafsanjan Univ Med Sci 2025; 24 (9): 773-4. [Farsi]
2. Chelli M, Descamps J, Lavoue V, Trojani C, Azar M, Deckert M, et al. Hallucination rates and reference accuracy of ChatGPT and Bard for systematic reviews: comparative analysis. J Med Internet Res 2024; 26: e53164.
3. Cohen JF, Moher D. Generative artificial intelligence and academic writing: friend or foe? J Clin Epidemiol 2025; 179: 111646.
4. Defning the Role of Authors and Contributors. ICMJE. Available from: <https://www.icmje.org/recom menda tions/browse/rolesand-respo nsibi lities/ defn ing- the- role- of- autho rs- and- contr ibutors. html>. Accessed on 26 June 2024.
5. Hua HU, Kaakour AH, Rachitskaya A, Srivastava S, Sharma S, Mammo DA. Evaluation and comparison of ophthalmic scientific abstracts and references by current artificial intelligence chatbots. JAMA Ophthalmol 2023; 141(9): 819e24.
6. Rezaeian M. Updating Publication Ethics Checklist. JRUMS 2025; 24 (6): 495-6.
7. Thorp HH. ChatGPT is fun, but not an author. Science 2023; 379(6630): 313.