




The Use of Artificial Intelligence in Writing Scientific Articles: A Major Challenge in Future Research

Hadis Azari ^{1,*}, Tayebah Eghbali², Soroush Maazinezhad³

¹ School of Nursing and Midwifery, Kermanshah University of Medical Sciences, Kermanshah, Iran

² Department of Nursing, Faculty of Nursing and Midwifery, Kermanshah University of Medical Sciences, Kermanshah, Iran

³ Sleep Disorders Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran

*Corresponding Author: School of Nursing and Midwifery, Kermanshah University of Medical Sciences, Kermanshah, Iran. Email: hadisazari20@gmail.com

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Dear Editor,

Artificial intelligence (AI) is an emerging technology designed to enhance educational and research activities, addressing the needs of scientific communities (1-3). The integration of AI into scientific article writing has transformed the research process. With the support of technological strategies and unlimited access to vast amounts of information, AI contributes to academic article writing. Additionally, through dynamic learning, it continuously improves its capabilities (4).

In today's academic world, some researchers and students have begun using AI for various academic tasks, including generating ideas and writing articles (5). Various AI-powered tools, such as ChatGPT, Bard, and Bing, provide researchers with human-like interactions, enabling quick access to scientific texts and the generation of unique content (2). Approximately 1.8 billion users visit these platforms monthly (5, 6). The application of AI in research activities not only saves time in article writing but also enhances individuals' self-efficacy in learning (5).

However, despite its numerous benefits, the frequent use of AI in scientific and academic articles presents a significant challenge due to the potential for errors. This issue has raised serious concerns within the research community (7, 8). At present, scientific communities lack standardized guidelines for integrating AI into research activities (5). The use of AI-generated text poses risks to academic integrity, including plagiarism and scientific dishonesty (5, 7), ultimately limiting researchers' opportunities for innovation, critical thinking, and originality in research (4).

Recommendation

Researchers can utilize artificial intelligence primarily to complete articles or to address deficiencies such as grammatical and language issues. Additionally, AI can be beneficial for tasks such as generating tables, graphs, resolving graphical issues, organizing content, and structuring article materials. In this regard, ethical guidelines for the use of AI chatbots should be established. It is important to emphasize that artificial intelligence should function as an interactive assistant to support researchers in overcoming article-related challenges. However, the initiative and intellectual contribution should remain with the researcher, ensuring that the structured writing of the article is conducted by the researcher.

Footnotes

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References

1. Ali Z. Artificial Intelligence (AI): A Review of its Uses in Language Teaching and Learning. *IOP Conference Series: Mater Sci Engin.* 2020;**769**(1). <https://doi.org/10.1088/1757-899X/769/1/012043>.
2. Cotton D, Cotton P, Shipway J. Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations Educ Teach Int.* 2023;**61**(2). <https://doi.org/10.35542/osf.io/mrz8h>.
3. Chen L, Chen P, Lin Z. Artificial Intelligence in Education: A Review. *IEEE Access.* 2020;**8**:75264-78. <https://doi.org/10.1109/ACCESS.2020.2988510>.
4. Malik AR, Pratiwi Y, Andajani K, Numertayasa I, Suharti S, Darwis A. Exploring Artificial Intelligence in Academic Essay: Higher Education Student's Perspective. *Int J Educ Res Open.* 2023;**5**:100296. <https://doi.org/10.1016/j.ijedro.2023.100296>.
5. Bin-Nashwan SA, Sadallah M, Bouteraa M. Use of ChatGPT in academia: Academic integrity hangs in the balance. *Technol Soc.* 2023;**75**. <https://doi.org/10.1016/j.techsoc.2023.102370>.
6. Duarte F. *Number of ChatGPT Users.* 2023. Available from: <https://explodingtopics.com/blog/chatgpt-users>.
7. Lo CK. What Is the Impact of ChatGPT on Education? A Rapid Review of the Literature. *Educ Sci.* 2023;**13**(4). <https://doi.org/10.3390/educsci13040410>.
8. Khairatun Hisan U, Miftahul Amri M. Artificial Intelligence for Human Life: A Critical Opinion from Medical Bioethics Perspective – Part I. *J Public Health Sci.* 2022;**1**(2):100-11. <https://doi.org/10.56741/jphs.v1i02.214>.