

Editorial

The impact of artificial intelligence (AI) in academic writing and publication: Iranian Journal of Basic Medical Sciences (IJBMS) policy

Leila Arabi ¹, Ali Roohbakhsh ², Bizhan Malaekheh-Nikouei ¹, Bibi Sedigheh Fazly Bazzaz ^{3*}

¹ Nanotechnology Research Center, Pharmaceutical Technology Institute, Mashhad University of Medical Sciences, Mashhad, Iran (Assistant Editor)

² Pharmaceutical Research Center, Pharmaceutical Technology Institute, Mashhad University of Medical Sciences, Mashhad, Iran (Assistant Editor)

³ Biotechnology Research Center, Pharmaceutical Technology Institute, Mashhad University of Medical Sciences, Mashhad, Iran (Editor-in-Chief)

► Please cite this article as:

Arabi L, Roohbakhsh A, Malaekheh-Nikouei B, Fazly Bazzaz BS. The impact of artificial intelligence (AI) in academic writing and publication: Iranian Journal of Basic Medical Sciences (IJBMS) policy. Iran J Basic Med Sci 2025; 28: 1-2. doi: <https://dx.doi.org/10.22038/ijbms.2025.25229>

Introduction

The rise of artificial intelligence (AI) has attracted significant interest across various areas including academic publishing. As AI technologies such as machine learning and large language models (LLMs) become increasingly sophisticated, they promise to revolutionize the way scientific research is written, reviewed, and even published. While AI's potential for enhancing efficiency, accuracy, and accessibility is widely welcomed, its integration into academia also raises critical questions about authenticity, ethical concerns, and the future of academic work. In this editorial we aim to explore the significance, hopes, and hypes surrounding AI's role in academic writing and scientific publishing.

The significance of AI in academic writing

AI's role in academic writing has already proven valuable in a variety of ways, from drafting research papers to improving writing clarity and coherence. Researchers now have access to writing assistants that can suggest improvements in grammar, style, and structure. Moreover, AI-based systems are capable of summarizing vast amounts of data, conducting preliminary research, and even suggesting potential areas for exploration (1).

Notably, the significance of AI is not just limited to writing assistance, AI systems are already being used to facilitate the peer-review process and assist in data analysis. For instance, automated tools can screen manuscripts for plagiarism, check for errors, and even evaluate the research quality, enabling editors to make quicker, more informed decisions (2).

AI hopes in academic publishing

The promises of AI in academic publishing are substantial. Many hope that AI will make easier and broader access to academic knowledge by making the publication process more efficient, transparent, and accessible to researchers worldwide. For example, AI systems could help underrepresented researchers in developing countries access advanced tools for publishing their work and enabling global scientific collaboration (3).

The hypes and challenges of AI in academic publishing

Despite the excitement surrounding AI's potential, there is also a great deal of hype and limitations that must be addressed. For instance, AI models often rely on large datasets that can sometimes contain biases. These biases may be unconsciously reinforced in academic publications, leading to biased interpretations of research. Another concern is the loss of academic integrity. AI can be used to generate large volumes of text, but the it is important that to what extent can we trust that the content produced by AI is original, accurate, and reflective of human thought? The AI-generated content raises questions about authorship, plagiarism, and the value of human insight in research (1).

Therefore, there is an ongoing debate about the ethical implications of AI in academic publishing. If AI systems are tasked with conducting peer reviews or suggesting edits to manuscripts, who is responsible for the final manuscript? Should AI allowed to assess research quality? The answers to these questions can have profound consequences for the development of academic publications.

*Corresponding author: Bibi Sedigheh Fazly Bazzaz. School of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran. Tel: +98-51-31801100, Email: fazlis@mums.ac.ir



***Iranian Journal of Basic Medical Sciences (IJBMS)
policy on artificial intelligence issue***

AI in academic writing and publishing presents both opportunities and challenges. However, the application of AI must be approached with caution. IJBMS guideline and policy is in agreement with the Committee on Publication Ethics (COPE) position statement on the use of AI at any step of manuscript preparation. We have clearly indicated that “Authors are fully responsible for the content of their manuscript, even those parts produced by an AI tool, and are thus liable for any breach of publication ethics” (4).

We do our best to address ethical concerns and manage the hype surrounding AI, to control its power for the greater good of our audience to enhance scientific publishing integrity. At the end, we wish all the academic communities around the

world a HAPPY NEW YEAR.

References

1. Carobene A, Padoan A, Cabitza F, Banfi G, Plebani M. Rising adoption of artificial intelligence in scientific publishing: Evaluating the role, risks, and ethical implications in paper drafting and review process. *Clin Chem Lab Med* 2024; 62:835-843.
2. Livberber T, Ayvaz S. The impact of artificial intelligence in academia: Views of Turkish academics on ChatGPT. *Heliyon* 2023; 9:e19688.
3. Butson R, Spronken-Smith R. AI and its implications for research in higher education: A critical dialogue. *High Educ Res Dev* 2024; 43:563-577.
4. Arabi L, Roohbakhsh A, Malaekheh-Nikouei B, Fazly Bazzaz BS. Joining COPE: Opportunities and benefits for the Iranian Journal of Basic Medical Sciences. *Iran J Basic Medl Sci* 2024; 27: 1-2.