

What Do Editors-in-Chief of Medical Journals Think About the Use of Artificial Intelligence Chatbots in the Scholarly Publishing Process? Results From An International Cross-Sectional Survey Across Multiple Publishers

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Objectives

This study aimed to examine the attitudes and perceptions of Editors-in-Chief (EiCs) of biomedical journals regarding the integration of artificial intelligence chatbots (AICs) into the scholarly publishing process. While AICs offer opportunities to streamline editorial tasks such as plagiarism detection, language editing, and ethics screening, they also introduce ethical, technical, and operational challenges. Understanding EiC perspectives is critical to shaping guidelines, policies, and training programs that align with the evolving role of AICs in scientific publishing.



Design

We conducted a cross-sectional survey of EiCs from biomedical journals published by Springer & BMC (part of Springer Nature), Taylor & Francis, Elsevier, Wiley, and SAGE, which are the five largest academic publishers by journal count. Eligible journals were identified through a combination of automated web scraping of publisher webpages and manual verification. A total of 3381 EiCs were invited via email to participate in an anonymous online survey conducted over five weeks in 2024, which included three follow-up reminders. The survey covered familiarity with AICs, current usage, perceived benefits and challenges, and anticipated future roles. Quantitative data were analyzed using descriptive statistics, while qualitative responses underwent thematic content analysis to identify key themes.

Results

Of the 3381 EiCs contacted, 510 responded (15.1% response rate), with 505 eligible participants and a completion rate of 87.0%. Most respondents were familiar with AICs (66.7%, 325/487) but had not used them in editorial workflows (83.7%, 401/479). Perceived benefits included enhanced language and grammar support (70.8%, 308/435) and plagiarism screening (67.3%, 294/437). However, respondents expressed concerns about initial setup and training (83.9%, 360/429), ethical risks (80.6%, 345/428), and technical reliability (75.2%, 322/428). While only 49.6% (240/484) of journals reported having formal AIC policies, 89.5% (419/468) of respondents supported training initiatives to promote ethical and effective usage. Despite limited current adoption, 78.9% (370/469) believed AICs will play an important role in the future of scholarly publishing, and 77.2% (363/470) anticipated their significance in advancing scientific research. Themes identified through thematic analysis of open-ended questions include: “no AI in authorship or peer review” referring to the EiC current journal/publisher policy on AIC use, and “ethical, integrity, and privacy concerns” referring to EiC perceptions of challenges with the use of AICs in the scholarly publishing process.

Conclusions

Biomedical journal EiCs recognize AICs’ potential to enhance editorial processes but highlight critical barriers, including ethical dilemmas, resource limitations, and insufficient policies and training. Structured interventions, including targeted training programs and robust ethical guidelines, are essential for addressing these challenges and ensuring responsible and effective integration of AICs into publishing workflows.

Funding

This study was unfunded.

Study Registration

Ng JY, Krishnamurthy M, Balaji V, Bouter L, Haynes RB, Iorio A, Lokker C, Maisonneuve H, Marusic A & Moher D. Attitudes and perceptions of biomedical journal editors-in-chief towards the use of artificial intelligence chatbots in the scholarly publishing process: A cross-sectional survey across multiple publishers. Available from <https://doi.org/10.17605/OSF.IO/XT6F2> or scan the QR code.



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