

Invited Article

Utilizing Generative AIs in Academic Writing: Opportunities, Challenges, Ethical Dilemma and Suggestions

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Abstract

The integration of artificial intelligence (AI) into research writing has sparked debates on its ethical implications, authorship concerns, and best practices. While AI tools such as ChatGPT can assist researchers in fetching, summarizing, and processing vast amounts of data, their limitations necessitate human supervision. This article examines the appropriate and inappropriate uses of AI in preparing a manuscript for publication by briefly highlighting key ethical considerations and best practices. While AI can support researchers in data analysis, literature assimilation, and language refinement, the intellectual processes of conceptualization, critical analysis, synthesis, and argumentation remain human responsibilities. In a nutshell, AI should be viewed as an ancillary tool rather than an independent research author so that academic integrity can still be upheld.

Keywords: Generative artificial intelligence (AI), Academic writing, Ethical conduct

Introduction

The advent of artificial intelligence (AI) has revolutionized various sectors, including academia. The adoption of AI in academic writing is gaining momentum, offering both opportunities and challenges (Homolak, 2023). AI has transformed multiple facets of academic research, from data gathering and analysis to manuscript drafting and editing (Stokel-Walker, 2024; Watson, Brezovec & Romic, 2025). For this reason, the integration of AI in academic writing presents numerous opportunities. AI tools can help speed up literature reviews, data analysis, and drafting research papers. These features significantly enhance efficiency and accuracy (Kocak, 2024; Polonsky & Rotman, 2023). AI can streamline the writing process, reduce human error, and provide real-time feedback, thus improving the overall quality of academic work. Additionally, AI can help researchers manage large datasets, detect trends or patterns quickly, and identify relevant literature more effectively.

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Nevertheless, the adoption of AI in academic writing is not without challenges. Large language models (LLMs) like ChatGPT and other AI-driven tools can generate text, summarize literature, and suggest content structures, which lead to questions about the ethical use of AI in research writing (Polonsky & Rotman, 2023). Ethical concerns, such as plagiarism and the potential for AI-generated content to demoralize academic integrity, are significant issues (Hammad, 2023). As indicated by Committee of Medical Journal Editors (ICMJE), AI cannot meet authorship criteria as outlined by the International and other governing bodies (Bao & Zeng, 2024; Moffatt & Hall, 2024). Furthermore, attributing authorship to AI undermines the humanization of academic work (Elsevier, 2025; Lund & Naheem, 2024). The need for clear guidelines and ethical standards to govern the use of AI in academic community should be emphasized. Moreover, disparities in accessing AI technologies across different institutions could exacerbate existing inequalities in academic research.

Despite these concerns, AI has undeniable benefits in improving efficiency and accessibility in research (Mushtaq, 2024). However, its usage must be governed by ethical considerations, including transparency, accountability, and fairness in credit allocation. The subsequent sections discuss the opportunities and challenges (i.e., the do's and don'ts) of using AI as an academic research writing tool, followed by the disclosure of AI usage prior to publishing,

The Do's: Ethical and Effective Use of AI in Research Writing

Using AI for Summarizing Literature and Processing Data

AI tools can efficiently scan and summarize vast amounts of academic literature, aiding researchers in identifying key themes, gaps, and trends (Polonsky & Rotman, 2023). This functionality is particularly useful for meta-analyses and systematic reviews, bibliometric analysis, where large datasets must be processed and categorized. However, researchers must remain cautious about AI's inability to discern misinformation or outdated sources. Therefore, the tasks of integrating, synthesizing, and conceptualizing remain those of the researchers' since coherent, sensible arguments are not the AI's forte.

Employing AI for Language Refinement

AI can help non-native English speakers improve the clarity and readability of their manuscripts. Many academic publishers permit the use of AI for grammar and syntax enhancement, provided the use is transparently disclosed (Lund & Naheem, 2024). AI-generated refinements should be critically reviewed to ensure they do not alter the intended meaning or introduce biases (Kocak, 2024; Watson et al., 2025). Again, authors/researchers remain the focal party to check if the manuscripts contain the main messages to be delivered to the target audience.

Using AI for Citation and Formatting Assistance

AI-powered citation managers help researchers format references in accordance with the specific requirements of various journals. However, researchers should verify AI-generated

citations to prevent inaccuracies or hallucinated references (Mushtaq, 2024). Studies have shown that AI citation tools often fabricate non-existent articles, making manual verification particularly essential (BaHammam, 2023). This feature of AI can tremendously benefit researchers in minimizing tedious work of formatting-reformatting the manuscripts to fit various journals' requirements and standards. In fact, several referencing and citation software were already introduced to assist writing long before the invention of AI. As such, it is advocated that AI should be used for this purpose to free authors from these rudimentary tasks.

Enhancing Research Efficiency Without Replacing Human Judgment

AI can expedite the writing process by offering structural suggestions and generating preliminary drafts. However, the intellectual rigor of argument development and critical evaluation must be undertaken by the humans (Moffatt & Hall, 2024; Polonsky & Rotman, 2023). The plausible consequences of overreliance on AI-generated contents without comprehensive supervision and editing by human authors may range from redundant or inarticulate writing, plagiarism in terms of lack of originality to a greater extent a hallucinated content. Therefore, the major contributions of the research still lie in the hands of the human authors.

The Don'ts: Ethical Pitfalls and Inappropriate Use of AI in Academic Writing

Relying on AI for Conceptualization and Argumentation

While AI can process large amounts of data, it lacks the ability to engage in deep conceptual thinking, critical analysis and synthesis, and original argument development (Moffatt & Hall, 2024; Polonsky & Rotman, 2023). Delegating these tasks to AI undermines the intellectual contribution of the researchers. Although newer versions of generative AIs may be equipped with a better ability to conduct basic logical arguments, these arguments are not what academia looks for in scholarly published work. Hence, humans remain the 'real' intelligence at the core of scientific discovery, while 'artificial' intelligence (AI) plays only an ancillary role.

Using AI for Generating False or Fabricated Data

This feature truly abuses the use of AI and is the most unethical practice of misusing AIs, as AI-generated content may contain hallucinated or incorrect information. Using AIs to create research findings, data, or citations without verification can lead to academic misconduct and ethical violations (Lund & Naheem, 2024). While the pressure to produce research as part of job requirements is high, researchers should uphold integrity and moral and ethical standards by forbidding themselves from using AI to produce 'fake' research. Thus, publishers and journals must support editors and reviewers by providing means to detect this malpractice and misuse of AI.

Failing to Disclose AI Assistance

Ethical research practices require transparency. Many top-tier journals now mandate that authors disclose the use of AI in manuscript preparation. As previously mentioned, AI serves as a

great facilitator in assisting with many research and writing tasks. Researchers and authors should exploit these advanced services provided by generative AIs and not forget to acknowledge its assistance. Disclosing the use of AI should be a standard code of conduct required by all journals to ensure that this becomes a ‘norm’ in published research work. The next section briefly illustrates common AI-related policies implemented by major publishers. This may serve as guidelines for editorial boards to adapt and adopt in order to improve journal quality standards and limit ethical misconduct.

Granting AI Co-Authorship

While some researchers might want to indicate AI as a co-author, most journals have agreed that AI lacks the capacity for accountability, responsibility, and intellectual ownership, which are requirements that constitute authorship based on the Committee on Publication Ethics (COPE) (COPE, 2025) and International Committee of Medical Journal Editors (ICMJE) (Bao & Zeng, 2024; Moffatt & Hall, 2024). Therefore, listing AI as a co-author disregards established authorship criteria and undermines research integrity (Bao & Zeng, 2024; Moffatt & Hall, 2024).

Policies Regarding AI Usage

The disclosure of AI usage in research writing has become a mandatory practice in many top-tier academic journals, particularly in business and management disciplines. Leading publishers require authors to explicitly state how AI tools were used in manuscript preparation. Here are common excerpts from journal policies on AI usages:

Transparency and Disclosure: Authors must clearly disclose the use of AI tools in their manuscripts by specifying the tools used and their purpose (Cambridge, 2025; Elsevier, 2025; Sage, 2025; Springer, 2025; Taylor & Francis, 2025).

Human Supervision: AI tools should only assist in improving readability and language, with authors retaining full responsibility for the content (Elsevier, 2025; Sage, 2025; Springer, 2025; Taylor & Francis, 2025).

Authorship: AI tools cannot be listed as authors. Authorship responsibilities must be attributed to humans (The Academy of Management, 2025; Cambridge, 2025; Elsevier, 2025; Sage, 2025; Springer, 2025; Taylor & Francis, 2025).

Accuracy and Verification: Authors must verify the accuracy and validity of AI-generated content and correct any errors or biases (The Academy of Management, 2025; Cambridge, 2025; Sage, 2025).

Ethical Use: AI tools should be used ethically, respecting data security, confidentiality, and copyright protection (Springer, 2025; Taylor & Francis, 2025).

Image Use: The use of AI to create or alter images in manuscripts is generally not permitted, except when AI is part of the research design (Elsevier, 2025; Springer, 2025).

Suggestions for Authors

With the requirements of both journals and publishers to disclose the use of generative AI in preparing manuscripts, authors should mandate themselves to comply with these policies. Here are some suggestions for authors to embrace in order to maintain academic integrity.

Explicit Disclosure of AI Assistance: Authors should explicitly disclose the use of AI tools in their manuscripts. This includes specifying the extent and nature of AI assistance in the research and writing process (c.f. Cambridge, 2025; Elsevier, 2025; Sage, 2025; Springer, 2025; Taylor & Francis, 2025; Watson et al., 2025).

Transparency in AI Contributions: Authors should provide a clear statement detailing how AI tools were used, whether for data analysis, literature review, drafting, or editing. This transparency helps maintain the integrity of the research and ensures that readers are aware of the contributions made by AI (Ganjav et al., 2024; Watson et al., 2025).

Ethical Considerations: Authors should adhere to ethical guidelines when using AI tools. This includes avoiding the use of AI to fabricate data or generate misleading content. Ethical use of AI should be emphasized to uphold the standards of academic integrity (Watson et al., 2025).

Acknowledgment of AI Limitations: Authors should acknowledge the limitations of AI tools used in their research. This includes discussing any potential biases or inaccuracies that may arise from AI-generated content and how these were addressed in the study (Goto & Katanoda, 2023; Watson et al., 2025).

Collaboration with Human Co-Authors: AI tools should not be listed as co-authors. Instead, the human authors who directed and supervised the AI's contributions should be credited. This ensures that accountability and responsibility remain with the human researchers (Watson et al., 2025).

Suggestions for Editorial Boards of Journals

Given that failure to disclose the use of generative AI can lead to ethical concerns, manuscript retractions, or outright rejection by academic publishers, which might eventually damage the reputation and credibility of journals, editorial boards should pay close attention to this issue and implement rigorous surveillance policies to monitor the appropriate use of AI in academic research. The following section provides some suggested guidelines for editorial boards of journals to consider.

Verification of AI-Generated Content: Journals should implement measures to verify that AI-generated content is not misrepresented as human-authored. This includes developing tools and protocols to detect AI-generated text and ensuring transparency in the use of AI in academic writing (Hammad, 2023; Hosseini & Resnik, 2025; Watson et al., 2025). Since this process is quite difficult to verify and controversial, other actions can be incorporated into the editorial policy.

Clear Labeling of AI-Generated Content: Journals should include in the author guidelines, requiring explicit labeling of AI-generated content in academic publications. Authors should disclose the extent and nature of AI assistance in their work to maintain transparency and

uphold academic integrity (Cambridge, 2025; Elsevier, 2025; Sage, 2025; Springer, 2025; Taylor & Francis, 2025).

Ethical Guidelines and Standards: Journals should establish ethical guidelines and standards for the use of generative AI in academic writing. These guidelines should address issues such as plagiarism, data bias, and the ethical implications of AI-generated content (Ganjav et al., 2024; Watson et al., 2025;).

Rigorous Review Process by Experts: Given the attractive features of generative AI that enable the speedy production of research papers, some researchers may have abused it. This is when reviewers play a very significant role in helping journals identify potential malpractices. As suggested by Hammad (2023, p. 459), *“...no one will be able to write a research paper in a correct sequence with accuracy and understanding unless he is familiar with the information and has done sufficient reading on the subject.”* Incentivizing ‘experienced’ and ‘ethical’ reviewers, who not only know the field but also value the authenticity of data, which is at the heart of gaining a true understanding of phenomena, may help minimize this pitfall.

Regularly Update of Publishing Guidelines and Policies: Editorial boards should regularly review and update policies on AI disclosure and usage to keep pace with advancements in AI technology. This ensures that the guidelines remain relevant and effective in addressing new challenges posed by AI in academic writing (Watson et al., 2025).

Conclusion

AI’s transformative impact on academic research methodologies is profound. It is reshaping traditional research practices, enabling more sophisticated data analysis and fostering interdisciplinary collaboration. This transformation is particularly relevant in Southeast Asia, where diverse research contexts and resource constraints necessitate innovative approaches to academic writing and research. Yet, rules and regulations governing the usage of AI’s in academic writing and publication still lag behind.

As emphasized repeatedly throughout this paper, the primary role of AI in research writing should be viewed as that of an auxiliary and ancillary tool rather than a complete substitute for human intellectual contributions. While AI can streamline data processing, literature compilation and summary, and language enhancement, it cannot replace the human researcher in conceptualizing, structuring, and critically analyzing and synthesizing scholarly work coherently and sensibly. As such, ethical guidelines must be established and strictly enforced to ensure that AI usage aligns with the principles of academic integrity. With the future of research writing likely to involve continued AI integration, human supervision and verification remain paramount in maintaining research credibility and originality. Moreover, the academic integrity of researchers, authors, reviewers, journal editors become increasingly crucial.

To ensure that academic ethical standards are not violated by the abusive use of generative AIs, it is essential for national regulatory bodies to formalize rules and regulations that monitor and implement surveillance mechanisms that ethical codes of conduct are instilled in AI-assisted research practices. Establishing clear frameworks will help mitigate potential ethical

violations, minimize abusive use of generative AIs, and reinforce the responsible use of AI in academic research. Top-down policies regarding the use of generative AI in conducting academic research from government body and publishers would ensure that AI is employed ethically and effectively, reducing the risks of misuse, misconduct and malpractice.

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