ASSAf and SciELO Guidelines

for the Use of Artificial Intelligence (AI) Tools and Resources in Research Communication

Endorsed by the ASSAf Council (17 September 2024)

Note that these guidelines will be updated periodically as AI tools develop.

1. Introduction

The introduction and availability of AI[1] and large language model (LLM)[2]-tools have opened up new possibilities in scholarly research and publishing. However, they also pose challenges for maintaining transparency, credibility, and accountability.

Artificial intelligence (AI) tools)[3] and resources are now widely used for preparing, evaluating, and editing manuscripts, and publishing and distributing articles and books. However, it is important to document the use of these tools in methodologies and ensure that they adhere to standards and ethical best practices in scholarly communication.

The purpose of these guidelines is to guide scholarly journals, book publishers, preprint platforms, and data collectors on the use of content generated by AI applications[4] in scholarly communication. These guidelines offer suggestions for updating the *Guidelines to Authors* section of journals and books, as well as for the internal management of manuscript submissions, evaluation, and final version editing by the editors of the journals or books.

They provide standards and practices for authors, editors, and reviewers regarding the use of AI tools and resources in research communication.

2. Recommendations for Authors

Authors are solely responsible for ensuring the authenticity, validity, and integrity of the content in their manuscripts. Because it is not the work of the authors, any use of content generated by an AI application must be appropriately referenced. Not acknowledging such use could amount to plagiarism.

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[1] 'Artificial intelligence, or AI, is the technology that enables computers and machines to simulate human intelligence and problem-solving capabilities'. https://www.ibm.com/topics/artificial-intelligence

[2] 'A large language model (LLM) definition is a type of machine learning (ML) model that can perform a variety of natural language processing (NLP) tasks, such as generating and classifying text, answering questions in a conversational manner, and translating text from one language to another'. https://www.techopedia.com/definition/34948/large-language-model-llm

[3] 'An AI tool is a software application that uses artificial intelligence algorithms to perform specific tasks and solve problems' e.g. ChatGPT.' https://www.synthesia.io/glossary/ai-tool#:~:text=An20AI20tool20is20a,specific20tasks20and20solve20problems

4 'Artificial intelligence (AI) applications are software programs that use AI techniques to perform specific tasks. These tasks can range from simple, repetitive tasks to complex, cognitive tasks that require human-like intelligence.' https://cloud.google.com/discover/ai-applications

Authors are called upon to avoid misinformation generated by an AI application, as this could have adverse consequences for them personally and impact the quality of future research and global knowledge.

Authors may use tools and resources that aid in the preparation, methodology, data analysis, writing support, review, and translation of their articles, book chapters, or books. AI applications offer many of these tools and resources, for example, grammatical and punctuation error detection tools that are permissible as long as their use maintains ethical and scientific integrity.

However, it is important to note that only humans can be considered authors, in accordance with the following rules and practices:

The sources of materials used in research and manuscript writing are referenced. Any use of content generated by an AI application should be mentioned in the body of the manuscript and could be mentioned under various sections. See (5) below.

- All cited material should be properly attributed, including full citations and the cited sources need to support the claims made by the AI application, as it is not uncommon for AI to generate references to non-existent works, i.e., all citations need to be checked.
- Commonly used AI tools such as spelling and grammar checks, do not need to be disclosed. However, authors in fields that use specialised terminology, such as legal and technical fields, should exercise discretion when using these tools. It is important to carefully scrutinise the suggestions provided by AI tools to avoid the misinterpretation of the context or terminology.
- The authors must assume responsibility for their work as authors.

Concealing the use of AI tools is unethical and violates the principles of transparency and honesty in research.

3. Recommendations for Editors

Editors use tools and resources to assist in receiving and evaluating submitted manuscripts and editing articles, chapters, or data files. These tools help determine whether the manuscript fits the editorial scope, summarise content, assign metadata, identify reviewers, and detect duplicate images, among other tasks. Many of these tools and resources are provided by AI applications. Editors need to be aware of the impact of AI-generated content in a publication when it is used to conduct analysis or report results as it has the potential for generating misleading or biased content.

Editors must conduct proper scientific scrutiny and ensure the quality and integrity of published scientific documents to the best of their ability. They need to be aware of tools and resources that facilitate the detection of AI-generated or modified content. In the fields that use specialised terminology, such as legal and technical fields, editors must be vigilant in checking for incorrect terminology that may have been suggested by spelling and editing tools. Journals should also include specific guidelines on the use of AI in their instructions for authors and reviewers.

Editors can play a crucial role in preventing the spread of misinformation through rigorous fact-checking, quality peer review, clear author guidelines, plagiarism and duplicate publication detection, transparency in corrections and retractions, ensuring that pre-print

or non-peer reviewed references are indicated as such, accepting only credible sources, and the ongoing training of editors and reviewers.

Editors must follow established ethical and editorial standards and best practices, including documenting any assistance provided by AI tools or resources during the manuscript reception, evaluation, and editing process. As with the recommendations for authors, concealing the use of AI tools in the editing phase is unethical and violates transparency in scientific editing.

When the submitted manuscript is not a preprint, the editor should not submit it to similarity-checking services that may disclose identities and content inappropriately. If any ethical lapse is detected in the manuscript, the editor must follow the ethical best practices of the respective journal.

4. Recommendations for Reviewers

Journals should not use any tools to replace the work of peer reviewers in the evaluation of manuscripts, and reviewers should not rely on AI-based tools to write decision letters on their behalf without proper human oversight.

Reviewers are responsible for evaluating manuscripts of articles, book chapters, or books fairly and objectively, with a focus on quality and originality. Experience and knowledge are crucial in this process, supported by various tools such as plagiarism detection programs, statistical analysis software, and academic search engines, many of which are provided by AI applications. Reviewers in fields that use specialised terminology, such as legal and technical fields, should carefully check for incorrect terminology that may have been suggested by spelling and editing tools.

Like editors, reviewers must consider the impact and implications of AI-generated content in publication when it is employed to conduct analysis or report results such as generating misleading or biased content, (which is expected to be indicated by the author in the methods section or the acknowledgement, depending on the journal's guidelines). They need to be aware of the tools and resources that facilitate the detection of AI-generated or modified content. Reviewers are called upon to avoid misinformation as this can have adverse consequences.

All submitted manuscripts and correspondence with the Editorial Office should be treated as confidential and not shared in any way.

Reviewers using AI applications and content must adhere to ethical standards and best practices and document their use of AI tools in the review reports. Hiding the use of AI tools is unethical and undermines transparency in peer review. The review process is confidential, and using AI tools on the manuscript makes it public, violating the confidentiality principle, disclosing confidential information in public, and compromising transparency.

If the submitted manuscript is not a preprint, the reviewer should not submit it to a similarity-checking service that may disclose identities and content inappropriately.

5. How to Reference and Cite AI Content

Content generated by AI tools should be cited and referenced as an unrecoverable source, similar to personal communication. When referencing the use of AI tools such as ChatGPT in scholarly

work, it is important to adhere to the citation standards of the specific academic field or journal you are writing for. Here are some general guidelines on how to reference and cite AI tools:

- Specific Journal Guidelines
  This should follow the guidelines for citing this type of resource in the chosen reference style of the relevant journal. The journal should provide an example in its *Guidelines to Authors* section. Just as personal communications are cited to provide attribution and context, citing AI-generated content ensures transparency and accountability in scholarly discourse.
- Referencing and citing AI Tools
  Any substantial use or content generated by an AI application must be mentioned in the methods section or the acknowledgement section (depending on the journal's guidelines). The declaration of such use should include the name, version, and manufacturer of the tool used and the date on which it was accessed, for example: (Chat GTP 3.5, Version 28 August 2023, Open AI, accessed 16 September 2023).

If the journal has specific guidelines or follows a specific referencing style for citing software or tools, authors should adhere to those guidelines. If such guidelines are not provided, a general format for software citation can be used.

Journals should encourage authors to mention the use of AI tools in the methodology or acknowledgements section of a manuscript (depending on the journal's guidelines) when such tools have been used. The '*prompt*' or plain-language instruction used in the tool should also be included in the methods section of the manuscript or provided as supplementary material (depending on the journal's guidelines).

Where AI tools or LLMs have been used, for example, in the conception and design of a study, editing of non-data images, editing or revising the writing, such contributions do not meet the criteria of authorship in scholarly research.

6. References

a. Scientific societies and journal publishers' websites consulted

ACL	Association for Computational Linguistics	https://www.aclweb.org/portal
CUP	Cambridge University Press	https://www.cambridge.org/
COPE	Committee on Publication Ethics	https://publicationethics.org
ICMJE	International Committee of Medical Journal Editors	https://www.icmje.org
JAMA Network	Journal of the American Medical Association Network	https://jamanetwork.com
UK ORI	University of Kentucky Office of Research Integrity	https://www.research.uky.edu/office-research-integrity
Taylor & Francis	Taylor & Francis Online	https://www.tandfonline.com
WAME	World Association of Medical Editors	https://www.wame.org

b. Documents consulted

- AI policy of the SAJS. South African Journal of Science (2024). https://sajs.co.za/editorial-policies#AI-LMMs
- AI policy of the Potchefstroom Electronic Law Journal (2024). https://perjournal.co.za/policies (see AI policy)
- Artificial intelligence and authorship. COPE 23 February 2023. https://publicationethics.org/news/artificial-intelligence-and-authorship Cambridge principles for generative AI in research publishing, Cambridge University Press, 2023. https://www.cambridge.org/core/services/authors/publishing-ethics/research-publishing-ethics-guidelines-for-journals/authorship-and-contributorship#ai-contributions-to-research-contentPLEASE FIX THE SPACING HERE.
- Chatbots, Generative AI, and Scholarly Manuscripts. WAME Recommendations on Chatbots and Generative Artificial Intelligence in Relation to Scholarly Publications. January 20, 2023. https://wame.org/page3.php?id=110
- COPE's position statement on Authorship and AI tools. COPE, 13 February 2023. https://publicationethics.org/cope-position-statements/ai-author
- Hosseini, M., Resnik, D. B., & Holmes, K. (2023). The ethics of disclosing the use of artificial intelligence tools in writing scholarly manuscripts. Research Ethics, 19(4). https://doi.org/10.1177/17470161231180449
- Jordan Boyd-Graber, Naoaki Okazaki, et al. 2023. ACL 2023 policy on AI Writing Assistance. https://2023.aclweb.org/blog/ACL-2023-policy/

c. Style guide examples

APA: How to cite ChatGPT
MLA: How to cite generative AI in MLA style
RMIT University - Library tutorials
The University of British Columbia Generative AI and ChatGPT

The original version of this document was tabled at the SciELO 25-year celebration in São Paulo in Brazil in September 2023.

The document was circulated to different stakeholders and comments and input were received from members of the ASSAf Council, the Committee of Scholarly Publishing in South Africa (CSPiSA), the National Scholarly Editors Forum (NSEF), the SciELO SA editors and the SciELO SA Advisory Committee, Prof Wian Erlank in particular, and staff members of the ASSAf Scholarly Publishing Unit.