

Maintaining research integrity and ethics

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Artificial Intelligence (AI) and associated tools and policies in editorial decision making

Africa's push to regulate AI starts now

AI is expanding across the continent and new policies are taking shape. But poor digital infrastructure and regulatory bottlenecks could slow adoption.

By Abdullahi Tsanni

March 15, 2024



<https://www.technologyreview.com/2024/03/15/1089844/africa-ai-artificial-intelligence-regulation-au-policy>

Who We Are
Mandate
Results



Artificial Intelligence is at the core of discussions in Rwanda as the AU High-Level Panel on Emerging Technologies convenes experts to draft the AU-AI Continental Strategy



<https://nepad.org/>



**Draft Continental Artificial
Intelligence Strategy**

**Harnessing AI for Africa's Development
and Prosperity**

Artificial intelligence in scholarly publishing

AI uses:

- Authors/Researchers
 - Improve preparation of manuscripts and articles
 - Tools: writing, references, statistical analysis
- Editors/Publishers
 - Screen submissions for problems, eg plagiarism, image manipulation, ethical issues, validate references, etc

ChatGPT

- Researchers began experimenting with ChatGPT (AI tool) when it was released in Nov 2022
- Natural processing tool - designed to stimulate human conversation in response to prompts on questions
- Looking at ways how they could benefit, and how it could support writing systematic reviews, literature searches, summarising academic articles, etc
- Many publishers wanted to reject before the trend gained traction
- Other publishers drafted guidelines on the proper use of this technology
- This presentation is aimed at discussing and gaining clarity on various issues such as editorial and publishing policies, authorship, various role players in the editorial process, and a call for transparency in editorial policies

ChatGPT is fun, but not an author

H. HOLDEN THORP [Authors Info & Affiliations](#)

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114,550 60

<https://www.science.org/doi/10.1126/science.adg7879><https://pubs.acs.org/doi/10.1021/acsenerylett.2c02828>

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AI *et al.*: Machines Are About to Change Scientific Publishing Forever

Gianluca Grimaldi* and Bruno Ehrler*

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<https://doi.org/10.1021/acsenerylett.2c02828>

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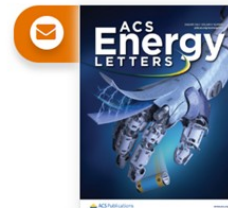
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ACS Energy Letters

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Best Practices for Using AI When Writing Scientific Manuscripts

[Caution, Care, and Consideration: Creative Science Depends on It](#)

Jillian M. Buriak*, Deji Akinwande, Natalie Artzi, C. Jeffrey Brinker, Cynthia Burrows, Warren C. W. Chan, Chunying Chen, Xiaodong Chen, Manish Chhowalla, Lifeng Chi, William Chueh, Cathleen M. Crudden, Dino Di Carlo, Sharon C. Glotzer, Mark C. Hersam, Dean Ho, Tony Y. Hu, Jiaying Huang, Ali Javey, Prashant V. Kamat, Il-Doo Kim, Nicholas A. Kotov, T. Randall Lee, Young Hee Lee, Yan Li, Luis M. Liz-Marzán, Paul Mulvaney, Prineha Narang, Peter Nordlander, Rahmi Oklu, Wolfgang J. Parak, Andrey L. Rogach, Mathieu Salanne, Paolo Samorì, Raymond E. Schaak, Kirk S. Schanze, Tsuyoshi Sekitani, Sara Skrabalak, Ajay K. Sood, Ilja K. Voets, Shu Wang, Shihua Wang, Andrew T. S. Wan, and Jinhua Ye

Cite this: *ACS Nano* 2023, 17, 5, 4091–4093

Publication Date: February 27, 2023

Andrey L. Rogach

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Chatbots, Generative AI, and Scholarly Manuscripts

WAME Recommendations on Chatbots and Generative Artificial Intelligence in Relation to Scholarly Publications

Revised May 31, 2023

<https://wame.org/page2.php?id=106>

Authorship and AI tools

<https://publicationethics.org/cope-position-statements/ai-author>

COPE position statement

The use of artificial intelligence (AI) tools such as ChatGPT or Large Language Models in research publications is expanding rapidly. COPE joins organisations, such as [WAME](#) and the [JAMA Network](#) among others, to state that AI tools cannot be listed as an author of a paper.

Comparison of AI editorial policies amongst major publishers

Editorial policy of journals in relation to AI: cases ELSEVIER, SPRINGER NATURE and TAYLOR & FRANCIS

[Painting by Ricardo Tavira, DGBSDI-UNAM]

Sources:

1. <https://newsroom.taylorandfrancisgroup.com/taylor-francis-clarifies-the-responsible-use-of-ai-tools-in-academic-content-creation/>
2. <https://www.springer.com/de/editorial-policies/artificial-intelligence--ai-/25428500>
3. <https://www.elsevier.com/about/policies/publishing-ethics-books/the-use-of-ai-and-ai-assisted-technologies-in-writing-for-elsevier>

| Elsevier | |
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| Uso de IA en el Proceso de Escritura | <ul style="list-style-type: none">• La IA generativa y las tecnologías asistidas por IA deben usarse para mejorar la legibilidad y el lenguaje del trabajo. |

<https://www.science.org/content/page/science-journals-editorial-policies#:~:text=AI%2Dgenerated%20images%20and%20other,explicit%20permission%20from%20the%20editors.>

Science Journals: Artificial intelligence(AI).Text generated from AI, machine learning, or similar algorithmic tools cannot be used in papers published in science journals, nor can the accompanying figures, images, or graphics be the products of such tools, without explicit permission from the editors. In addition, an AI program cannot be an author of a Science journal paper.



Nature: AI Authorship Large Language Models (LLMs), such as ChatGPT, do not currently satisfy our authorship criteria. Notably, an attribution of authorship carries with it accountability for the work, which cannot be effectively applied to LLMs. Use of an LLM should be properly documented in the Methods section (and if a Methods section is not available, in a suitable alternative part) of the manuscript.

<https://www.nature.com/nature-portfolio/editorial-policies/ai>

Authorship (1)

- All authors are fully responsible for the originality, validity, and integrity of the content of their manuscript/s
- Authors have to indicate that it is their original work and does not contain any unlawful content and does not infringe any existing third-party copyright, moral right or other intellectual property rights
- The work of others has been appropriately attributed
- AI-generated content will not be considered for publication. Any submission found to include AI-generated content will be declined.

Authorship (2)

- Under most jurisdictions, an author must be a legal person
- Chatbots do not meet authorship criteria:
 - Not being able to give “final approval of the version to be published”
 - “To be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved”
 - No AI tool can “understand” a conflict-of-interest statement
 - No AI tool has the legal standing to sign a statement
- Chatbots have no affiliation independent of their developers
- Since authors submitting a manuscript must ensure that all those named as authors meet the authorship criteria, chatbots cannot be included as authors

Transparency and acknowledgment

- Authors should be transparent when chatbots are used and provide information about how they were used
- All prompts:
 - Used to generate new text, or to convert text or text prompts into tables or illustrations, should be specified
 - Used to carry out or generate analytical work, help report results (eg generating tables or figures), or write computer codes, should be stated in the body of the paper, in both the **Abstract** and **Methods** sections
- In enabling scientific scrutiny, including replication and identifying falsification, the full prompt used to generate the research results, the time and date of query, and the AI tool used and its version, should be provided

Attribution

- Must ensure that the content reflects the author's data and ideas and is not plagiarism, fabrication or falsification
 - Otherwise, it is potentially scientific misconduct to offer such material for publication, irrespective of how it was written
- All quoted material is appropriately attributed, including full citations, and the cited sources support the chatbot's statements
- Chatbots are designed to omit sources that oppose viewpoints expressed in their output, it is the author's responsibility to find, review, and include such counterviews in their articles
- Identify the chatbot used and the specific prompt (query statement) used with the chatbot
- Authors should specify what they have done to mitigate the risk of plagiarism, provide a balanced view, and ensure the accuracy of all their references

Editor's and peer reviewer's responsibilities

- Reviewers are responsible for the content of their review reports and for adhering to Confidentiality Policies
- Chatbots retain the prompts fed to them, including manuscript content, and supplying an author's manuscript to a chatbot breaches confidentiality of the submitted manuscript

Appropriate tools

- Editors need appropriate tools to help them detect content generated or altered by AI
- Such tools should be made available to editors
 - For free
 - For the good of science and the public
 - To help ensure the integrity of information and reduce the risk of adverse outcomes
- Editors are already at a disadvantage when trying to differentiate the legitimate from the fabricated
- Chatbots take this challenge to a new level



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Conclusion and final remarks

- Editorial policies aids editors in making editorial decisions
- Policies protect editors, authors, reviewers
- They make the rules of engagement explicit when they need to be and can be safely in the background at other times

Questions?

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