Maintaining research integrity and ethics

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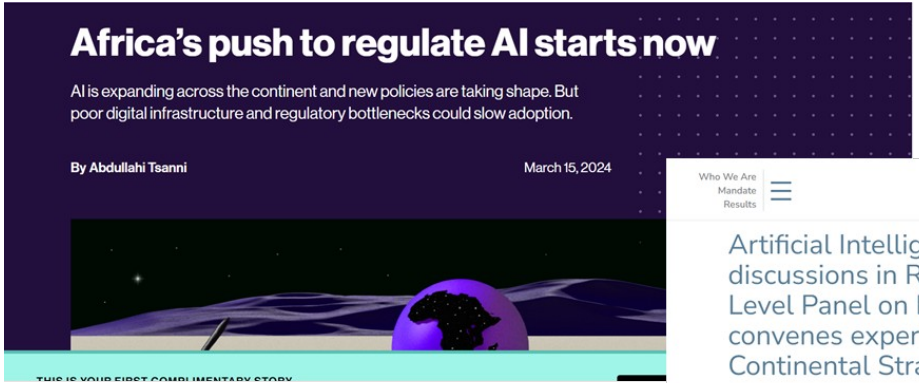
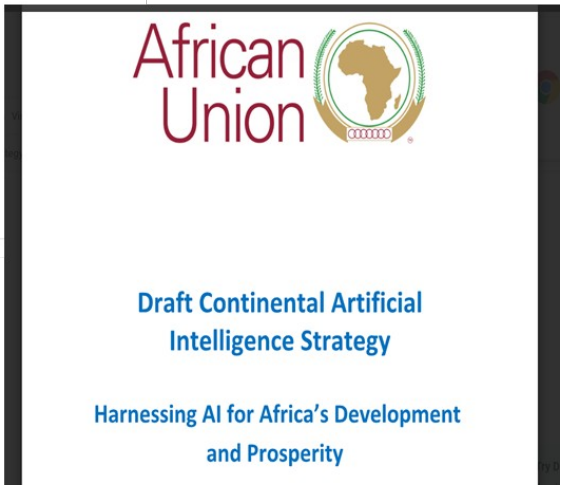
Artificial Intelligence (AI) and associated tools and policies in editorial decision making



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

https://nepad.org/



https://www.linkedin.com/posts/mohamed-said-570bbbb1_draft-continental-ai-strategy-harnessing-activity-7197205381717061633-zG64/

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

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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

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https://www.science.org/doi/10.1126/science.adg7879

https://pubs.acs.org/doi/10.1021/acsenergylett.2c02828

https://docs.google.com/presentation/d/1grcEfjNrugDhzFBWQq-LK9BsmZx9qCd8/edit#slide=id.g2e0b594549f_0_245

HOME Editorial Policies

Editorial Policies

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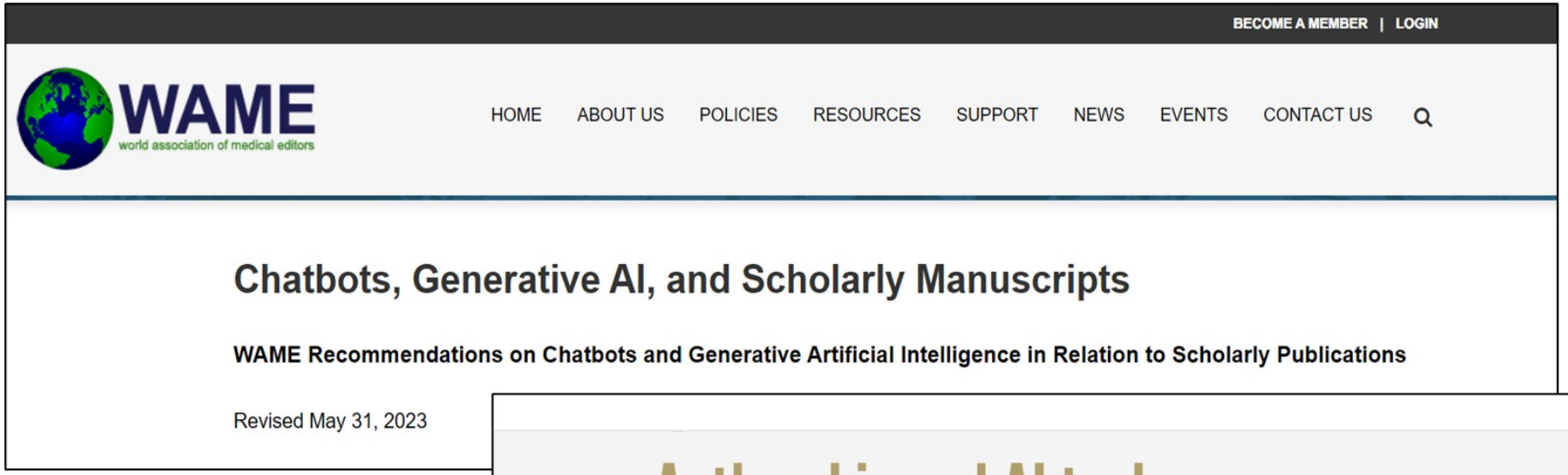
South African Journal of Science https://sajs.co.za/editorial-policies



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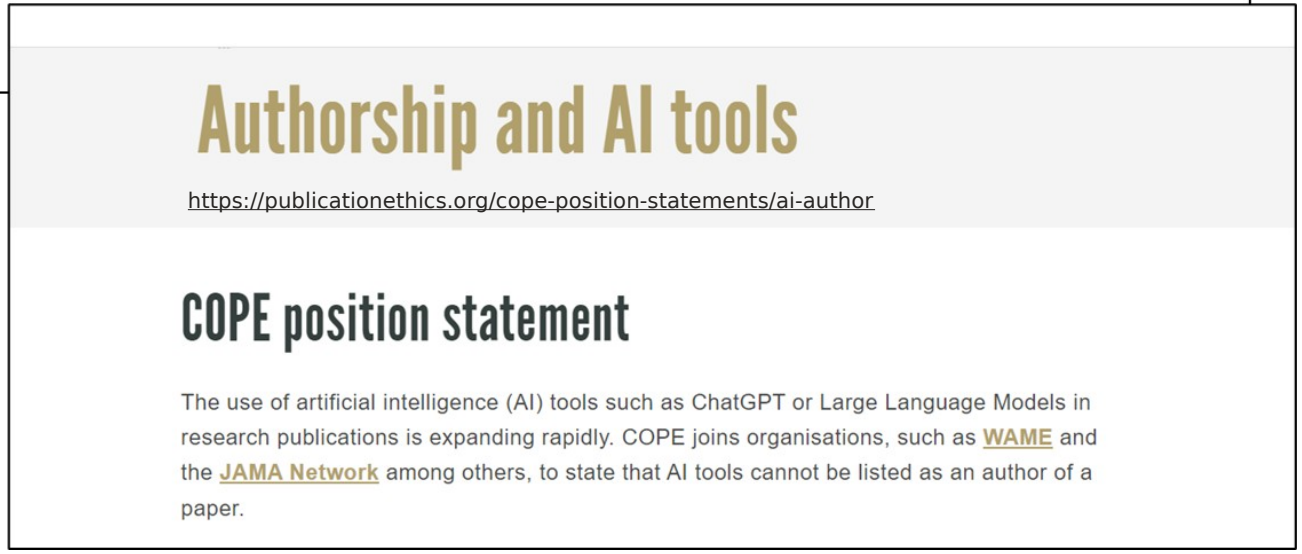

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Comparison of AI editorial policies amongst major publishers

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
Uso de IA en el Proceso de Escritura	• La IA generativa y las tecnologías asistidas por IA deben usarse para mejorar la legibilidad y el lenguaje del trabajo.

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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

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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.

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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

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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

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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

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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

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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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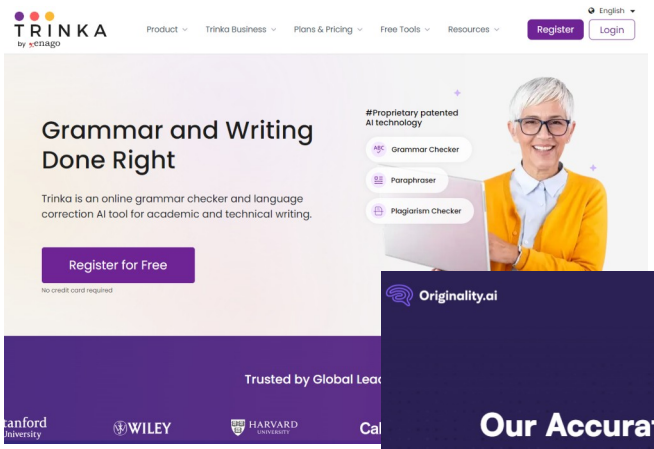

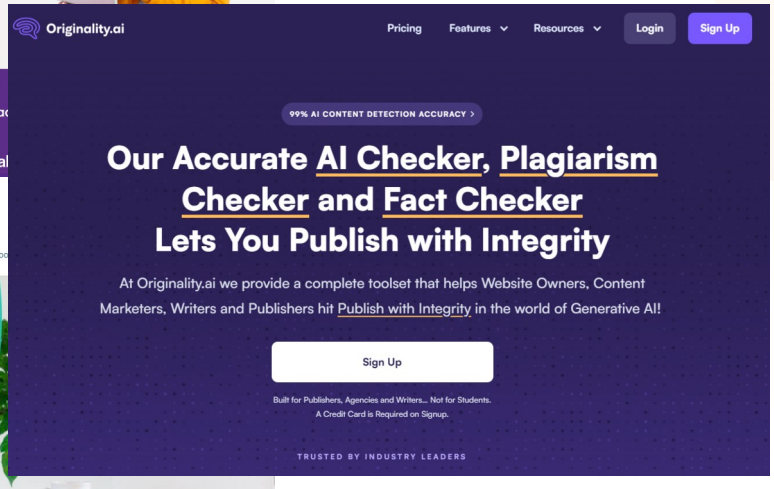

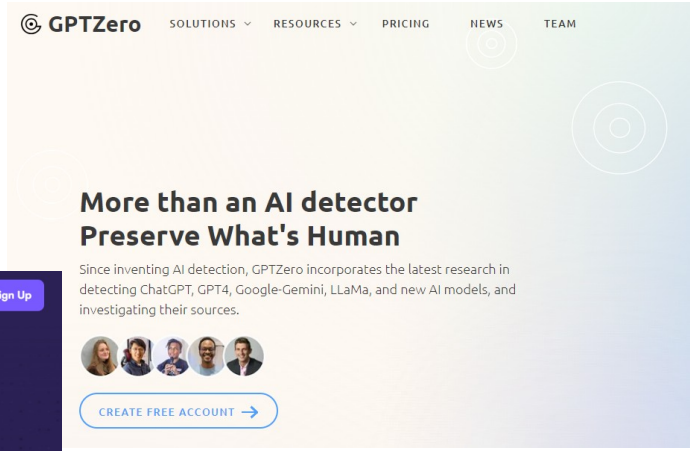

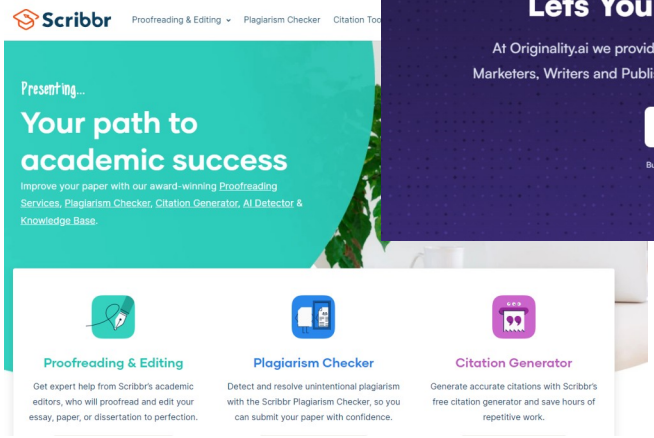

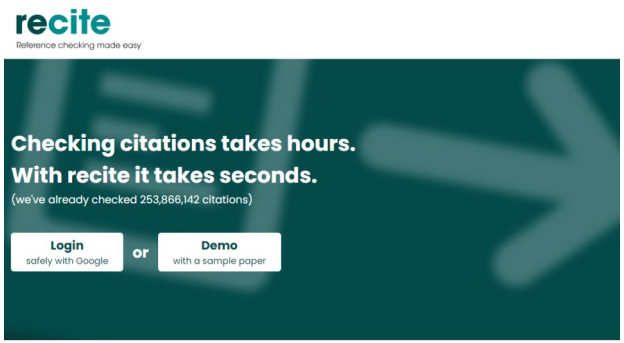

Reference checking made easy

What does recite do?

Very simply, Recite checks that your in text citations match the reference list at the end of your work.

First, Recite checks that the authors and dates in the body of your work match up with the references at the end. Then Recite tells you where it finds errors.

Recite also checks for a growing list of stylistic errors related to referencing.

Explore a demo paper that shows what Recite can do.

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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

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Questions?

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