
Revision History

Revision	Date	Author(s)	Description
1.0	July 30, 2026	RW	First draft: internal use only.
1.1	August 05, 2026	All	Revised approved draft: internal use only.
1.2	August 12, 2026	JIF	Public draft.

Volcanica Policy on Use of Artificial Intelligence (AI)

Volcanica editorial committee

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Authorship statement

Policy document drafted with the input and approval of the Volcanica Editorial Committee.

¶ 0.1 This policy document, the Volcanica “Volcanica Policy on Use of Artificial Intelligence (AI),” supplements the Charter and other policies of the journal Volcanica, hereafter referred to as “the Journal”. This policy document outlines the journal’s stance on the use of Artificial Intelligence (AI). AI is developing at a rapid pace and Volcanica is monitoring the use and application of AI in research and publication processes. These statements will be reviewed and updated accordingly; the Volcanica community should regularly check for amendments. This guidance is not intended to be comprehensive and the community should always err on the side of caution and approach this issue with integrity and transparency. “AI” used here in its broad sense, includes but is not limited to Machine Learning, Large Language Models (LLM), and Generative AI.

1 Summary

¶ 1.1 AI usage is not permitted for the generation of text included in manuscripts. It is understood that AI tools can be used in the data collection and analysis stages of research; all such practices should be declared openly and transparently within manuscripts. Generative AI for images and videos is not permitted unless part of the research process. AI is prohibited in the peer review, editorial, and publication process. For full policy detail see below.

2 Use of AI in research

¶ 2.1 The term artificial intelligence (AI) is a broad, umbrella term for a range of algorithm- based tools and technologies that can solve or assist in complex tasks that previously required human thinking or effort. These guidelines are not a thorough assessment of the use of AI in research; we direct the Volcanica community to the

following guidelines for full considerations of the terminology, ethics and use of AI in research:

- UKRIO (2025) Embracing AI with integrity, A practical guide for researchers <https://doi.org/10.37672/UKRIO.2025.06.embracingAIwithintegrity>
- European Commission (2026) Living guidelines on the responsible use of generative AI in research https://research-and-innovation.ec.europa.eu/document/2b6cf7e5-36ac-41cb-aab5-0d32050143dc_en

¶2.2 We also highlight that there are substantial ethical and environmental considerations regarding AI and LLM usage. Many of these are laid out in the following United Nations Environment Programme (2024) publication:

- Artificial Intelligence (AI) end-to-end: The Environmental Impact of the Full AI Lifecycle Needs to be Comprehensively Assessed - Issue Note <https://wedocs.unep.org/handle/20.500.11822/46288>.

3 Use of generative AI in manuscript writing (AI Authorship)

¶3.1 Here we distinguish between the use of generative AI to create content, and AI tools to help edit text written by human authors.

¶3.2 Volcanica does not accept manuscripts in which generative AI has been used to create content or parts of the text. An important element of manuscript authorship is accountability for the methods, data, analysis, and interpretation. As a large language model (LLM) cannot be held accountable for the work it has produced, it does not satisfy our criteria for authorship.

¶3.3 An LLM, or other AI tool, must not be used to summarise the manuscript as the basis for either the abstract or lay person summary. It should only be used with caution as a translation tool to generate second language abstracts, based on an original human-authored abstract. It should not be used to create primary content and second language abstracts must be checked for correct meaning, tone and use of technical language by a fluent speaker. Use for this purpose must be clearly stated in the manuscript.

¶3.4 It is increasingly common to use AI tools to generate bibliographic data. We advise authors to use bibliographic/referencing software as AI tools can produce incorrect or hallucinated references. Regardless of method of generation, authors should check that the information, especially the DOI, is correct.

¶3.5 The use of an LLM, or other AI tool, can be used in the writing process to help improve the readability and language of text that has been written by human authors e.g. proof-reading, copyediting, and checking translations. These improvements should not include autonomous content creation, and all uses should have human oversight and accountability for the final version of the text. All authors should agree that edits reflect their original work and approve the final version of the manuscript.

4 Use of AI in data analysis

¶ 4.1 There are several ways in which AI can be used in the research process, and many of these have long-standing established methodologies, such as machine-learning approaches to big data. There are also AI tools that can be used to scrape data from figures in published works (e.g. retrieving values from graphs where no table was published with the data) or from publicly available datasets.

¶ 4.2 Any use of AI tools in the research process, including using AI to help develop or refine code, must be detailed in the methods. Where these tools are used to scrape data, all data sources must be properly cited, and care taken to verify the validity of scraped data. Use of these tools to acquire or analyse data involving humans (e.g. LLM analysis of social media) must have appropriate ethical approval. AI must not be used to generate data presented as otherwise real.

5 Use of generative AI for figures, images and artwork

¶ 5.1 The use of AI in generating figures and images is rapidly evolving and creates a somewhat grey area, resulting in legal copyright, research integrity, and moral concerns. Here we attempt to distinguish between different uses and their accepted use in Volcanica manuscripts.

¶ 5.2 Primary research images represent primary observed or experimental data such as photographs of field exposures, videos of analogue experiments, SEM images or photomicrographs. Data visualisations are figures generated from underpinning datasets through analytical, computational or statistical processes (e.g. graphs).

¶ 5.3 AI must not be used to fabricate results or any data underpinning data visualisations. All underlying data should be provided in the manuscript or in supplementary materials. There are AI tools available that can assist in the creation of data visualisation; these are only permitted when the visual output is directly derived from, and faithfully represents, the underpinning data. Use of these tools should be described in the methods (including tool name, version used, developer/manufacture).

¶ 5.4 AI-generated primary research images or videos should not be included in the manuscript, unless they are part of the research process (in which case, this would be clearly detailed in the methods). In this case, the image must be clearly labelled as generated by AI in the image field. Where artwork is included in the manuscript, this should be created by the authors, an artist, or a scientific illustrator (appropriately credited).

¶ 5.5 Not all AI tools are generative. For example, there are AI/machine learning tools within image processing software and graphic packages to combine or improve the presentation of figures or primary research images (e.g. improving the contrast of photographs). AI or AI-assisted tools should not be used to manipulate or alter primary research images whereby the resulting output is misleading and misrepresents the original results or images. Any alteration should be applied to the whole image. All authors must agree that presented data visualisations and primary research images reflect the original data. Authors should have the original, unprocessed data available upon request of editors or reviewers. Use of these tools should be included in the methods statement as appropriate.

6 Use of AI in peer review

¶ 6.1 A full explanation of our expectations of the peer review process is provided in our policies. The use of AI in the review process is strictly prohibited.

¶ 6.2 We solicit peer reviews for expert analysis of submitted manuscripts and select peer reviewers based on their subject knowledge. AI cannot and does not replace this expertise. If a peer reviewer feels that they do not have the expertise to review a manuscript, they should decline the invitation rather than use an AI tool to assist them. Furthermore, academic publishing relies on mutual trust; authors trust that editors and peer reviewers handle their manuscript in confidence. Uploading a manuscript to an AI tool, such as an LLM, to assist in the peer review process breaks this trust and will be considered malpractice as it may violate data privacy rights.

7 Use of AI in the publication and editorial process

¶ 7.1 AI is not used to make or assist in editorial decisions; all decisions are made by editors. We do not use AI in the copyediting, typesetting or production process and do not upload manuscripts to LLMs or other AI tools. We do not use generative AI to generate content such as cover art, editorials, or social media posts.

If you are unsure about any use of AI in the research and publication process for manuscripts submitted to or published in Volcanica, please contact editor@jvolcania.org.