GUIDANCE RESOURCE

AI-Assisted Peer Review and the Emerging Risk of Intellectual Property Misuse in Scholarly Publishing

A guidance resource for authors, reviewers, editors, and publishers of Diamond Open Access journals

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About the Resource

This resource presents guidance and recommendations that emerged from discussions by members of the No-Fee Open Access Publishing in Africa Community of Practice on the increasing use of generative AI in peer review. In particular, the discussions focused on how AI-assisted peer review may affect review quality, transparency, confidentiality, and accountability, as well as the intellectual property risks that may arise and how editors and publishers can respond where unethical AI use in peer review is suspected or established. The resource draws on discussions from the 15th Community of Practice meeting, held on 18 March 2026, which focused on The Role of Publishers and Editors in Safeguarding the Peer Review Process: How Can AI-Use Disclosure by Reviewers Be Enforced? and Journal Editorial Workflows, and the 16th meeting, held on 15 April 2026, which focused on Editors' Role in Safeguarding Peer Review Quality amid Reviewer Scarcity, Fatigue, and the Turn toward AI Assistance.

The resource covers the definition and scope of AI-assisted peer review, case examples reflecting authors' experiences with AI-generated or AI-shaped review reports, and key risks and concerns, including poor review quality, lack of transparency, confidentiality and data privacy risks, and copyright and intellectual property risks arising from AI-generated reviewer feedback. It provides practical guidance for authors, reviewers, and editors, as well as a step-by-step appeals process that journals can adapt to enable authors to raise concerns about poor-quality, vague, generic, or potentially AI-generated review reports. It also covers journal-level considerations for AI-assisted peer review, including whether AI assistance is necessary, keeping human judgment at the centre of peer review, monitoring the operational impact of AI policies and responsible-AI training, and resources that journals can consult when developing or revising their AI policies. It concludes with key recommendations for strengthening AI-related peer review policies, reviewer accountability, editorial oversight, and processes for handling concerns.

This resource has been developed as part of the *Collaboration for Sustainable Open Access Publishing in Africa project*, implemented by EIFL, the West and Central African Research and Education Network (WACREN), and African Journals Online (AJOL), with support from Wellcome (grant number 228148/Z/23/Z). The author would like to thank the members of the No-Fee Open Access Publishing in Africa Community of Practice for their valuable contributions to the discussions that informed this resource.

Introduction

The peer review process embodies principles of democratic evaluation, as decisions about manuscript acceptance for publication or rejection are informed by the collective judgment of independent reviewers rather than relying solely on the opinion of a single editor. In this sense, peer review functions as a form of collective governance of scientific research. Reviewer scarcity and fatigue have become significant concerns in scholarly publishing, contributing to slower peer review processes and increasing the difficulty of securing reviewers (Beecher & Wang, 2025; Clarke, 2025; Phuljhele, 2024). Cuellar (2024) reports that, at the *Journal of Transcultural Nursing*, associate and senior editors sometimes had to invite between 25 and 30 potential reviewers to secure a single acceptance, with only 17% of invited reviewers agreeing to review. This low participation rate extends review cycles and delays publication timelines. More broadly, peer review and publication can take several months, with average review times ranging from 12–14 weeks in some disciplines to 25 weeks or more in others, and in extreme cases, the process can exceed one year (Riding, 2024). These pressures increasingly contrast with researchers' and funders' growing demand for the timely dissemination of research findings. Some funders now require or strongly encourage researchers to share funded manuscripts as preprints. For example, the Gates Foundation requires its grantees to post funded manuscripts as preprints, while Wellcome strongly encourages preprints and requires them where rapid dissemination provides significant public-health benefit (Gates Foundation, 2025; Wellcome, 2025). Preprints also underpin alternative approaches to publishing and peer review, including the Publish, Review, Curate (PRC) model, in which research outputs are made publicly available before subsequent open review and/or curation (PRC Alliance, 2026).

Alongside these developments in scholarly publishing and peer review, the increasing use of generative AI tools requires further consideration of how researchers and reviewers assess manuscripts. Generative AI tools are increasingly capable of summarising research manuscripts and identifying potential weaknesses. Some have argued that these tools may help reviewers work more efficiently, reduce reviewer workload, and shorten the time required to complete reviews, although their use also raises concerns about accuracy, bias, confidentiality, and accountability (Leung et al., 2023; Nature Biomedical Engineering, 2024). The International Committee of Medical Journal Editors (ICMJE), for example, warns that AI-generated output may be incorrect, incomplete, or biased and that reviewers must protect manuscript confidentiality when using AI technologies (ICMJE, 2026). While using generative AI tools for manuscript review may save time, it also introduces risks that publishers and journals incorporating AI into their workflows, or considering doing so, should assess carefully.

Generative AI models are trained using large quantities of pre-existing material, some of which may be protected by copyright or other intellectual property rights (Buick, 2025). The U.S. Copyright Office notes that generative AI models can sometimes produce outputs that replicate or closely resemble copyrighted works (U.S. Copyright Office, 2025). AI-generated reviewer feedback may therefore contain or closely reflect material derived from third-party sources without making that origin clear. Reviewers may pass on AI-generated or AI-reframed methods, code, formulations, or procedures to authors without knowing whether those suggestions were drawn from copyrighted, proprietary, or otherwise protected third-party

material. If authors subsequently incorporate such material into revised manuscripts, this may create risks of plagiarism, unauthorised use of proprietary material, or intellectual property infringement, depending on the nature of the material and the applicable law. This can be described as AI-mediated intellectual property misuse in peer review, which may be defined as the unintended introduction of copyrighted, proprietary, or otherwise protected third-party material into research through AI-generated reviewer feedback. As AI tools become more widely used in research and publishing workflows, authors, reviewers, and editors need to understand the risks that may arise from their use in peer review. Journals also need clear policies defining acceptable and unacceptable uses of AI across the publication and review process. This aligns with COPE's guidance that "Journals have an obligation to provide transparent policies for peer review, and reviewers have an obligation to conduct reviews in an ethical and accountable manner" (COPE Council, 2017).

This resource covers the emerging risks associated with AI-assisted peer review, including review quality, transparency, confidentiality, and intellectual property. It provides practical guidance for authors, reviewers, and editors, recommendations and resources for Diamond Open Access journals developing or revising their AI policies, and a step-by-step appeals process for handling and resolving authors' concerns about poor-quality, vague, generic, or potentially AI-generated review reports.

This resource emerged from the 15th meeting of the No-Fee Open Access Publishing in Africa Community of Practice on 18 March 2026, which focused on *The Role of Publishers and Editors in Safeguarding the Peer Review Process: How Can AI-Use Disclosure by Reviewers Be Enforced? and Journal Editorial Workflows*, and the 16th meeting on 15 April 2026, which focused on *Editors' Role in Safeguarding Peer Review Quality amid Reviewer Scarcity, Fatigue, and the Turn toward AI Assistance*. The CoP brings together editors and publishers of no-fee (diamond) open access journals and books across Africa to discuss publishing challenges and identify practical solutions. The CoP is part of the *Collaboration for Sustainable Open Access Publishing in Africa project*, implemented by EIFL (Electronic Information for Libraries), WACREN (West and Central African Research and Education Network), and AJOL (African Journals Online), with support from Wellcome (EIFL, 2024). The CoP is moderated by WACREN.

What Is AI-Assisted Peer Review?

AI-assisted peer review can be defined as the use of artificial intelligence tools in conducting or supporting peer review activities. This may include reviewers using AI tools to evaluate submitted manuscripts, summarise manuscripts, or generate full or partial review reports. Peer review is fundamentally a human-centred activity, and access to AI tools should not override human agency. Where AI is used to generate core evaluative comments or for the substantive assessment of a manuscript, the risks become much more serious.

Case Examples: Authors' Disappointing Experiences

Case 1: Unethical Academics, AI, and Peer Review: An Author's Disappointing Experience (https://www.nicospage.eu/publications/unethical-academics-ai-and-peer-review)

Published case study associated with Case 1 - Personal experience with AI-generated peer reviews: a case study (https://doi.org/10.1186/s41073-025-00161-3)

Case 2: 'Vague, confusing, and did nothing to improve my work': how AI can undermine peer review (https://world.edu/vague-confusing-and-did-nothing-to-improve-my-work-how-ai-can-undermine-peer-review/)

Key Risks and Concerns in AI-Assisted Peer Review

1. Poor Review Quality

Common concerns raised by authors are that AI-generated or AI-shaped review reports are often vague, generic, repetitive, superficial, or disconnected from the manuscript. Such reports may appear convincing but are often not actionable. They may fail to identify key weaknesses in a manuscript or include recommendations for revisions without clear justification. This undermines the purpose of peer review. Feedback should be specific, constructive, and actionable.

2. Lack of Transparency

A major challenge is that editors may not know when AI has been used to review manuscripts. Even where journals ask reviewers to disclose AI use, enforcing this requirement may be difficult. Reviewers may fail to disclose, may disclose incompletely, or may not understand what level of use requires disclosure. As a result, editors may unknowingly base acceptance or rejection decisions on AI-generated reviewer reports.

3. Confidentiality and Data Privacy Risks

Reviewers are entrusted with access to unpublished work on the understanding that it will not be shared beyond the peer review process. Uploading manuscripts, tables, figures, or supplementary files into external AI systems may expose unpublished research findings and other confidential information to systems outside the journal's control.

4. Copyright and Intellectual Property Risks Associated With AI-Generated Reviewer Feedback

AI-generated reviewer reports may contain or closely reflect material derived from copyrighted or proprietary sources without making that origin clear. Intellectual property risks in AI-assisted peer review therefore extend beyond uploading manuscripts to AI systems and may also arise from the content generated by those systems, which are trained on pre-existing material that may include copyrighted works. The U.S. Copyright Office notes that generative AI systems can sometimes produce outputs that replicate or closely resemble copyrighted works (U.S. Copyright Office, 2025). Reviewers may therefore pass on AI-generated or AI-reframed methods, code, formulations, procedures, or other technical suggestions to authors without knowing whether those suggestions were drawn from copyrighted, proprietary, or otherwise protected third-party material. Authors who incorporate such suggestions into a revised manuscript may consequently

incorporate unattributed, copyrighted, proprietary, or otherwise protected material into their work, creating risks of plagiarism or intellectual property infringement where the use is not authorised, licensed, or covered by an applicable exception or limitation, such as fair use. Editors may also bear additional responsibilities, as they oversee the peer review and publication process and remain accountable for editorial decisions. Editors may also face legal or reputational risks where material introduced into a manuscript following the use of AI during peer review is subsequently published in a journal and found to infringe third-party intellectual property rights. This may also affect the journal's credibility.

Guidance for Authors, Reviewers and Editors

Guidance for Authors

1. Authors should understand that not all reviewer comments and recommendations should be accepted uncritically. Where a reviewer's comment or recommendation is vague, generic, repetitive, or disconnected from the study, authors may reasonably seek clarification from the editor. Concerns should be based on evidence and patterns identified in the review reports provided, not on suspicion alone.

2. Authors should pay particular attention to reviewer suggestions or recommendations that introduce unfamiliar methods, procedures, techniques, or formulas without clear explanation. Before incorporating such suggestions, authors should assess whether they are appropriate, traceable, and consistent with the study's aims and field norms. Where necessary, authors should ask for clarification or justification of the suggestions.

3. Authors should also be aware that poor-quality review can negatively impact their work. If there are serious concerns that a review may have been generated or heavily shaped by AI in a way that undermines quality or fairness, authors should document the issue and raise it with the editor.

Guidance for Reviewers

The following guidance draws on established principles of ethical peer review, including those outlined in COPE's Ethical Guidelines for Peer Reviewers, as well as more recent advice from COPE Members and COPE Council Members concerning the use of generative AI in peer review. It outlines what reviewers should do to avoid the misuse of generative AI tools during peer review.

1. Reviewers should treat all manuscripts and review materials as confidential. They should not upload manuscripts, tables, figures, or supplementary files into public or commercial AI tools. This is essential to protect authors' unpublished research and intellectual contributions and preserve trust in the review process. Although COPE's Ethical Guidelines for Peer Reviewers (Version 2, 2017) predates the widespread use of generative AI tools, its guidance on confidentiality, reviewer accountability, and the quality of reviewer reports remains relevant to AI-assisted peer review. COPE states that reviewers should "respect the

confidentiality of the peer review process and refrain from using information obtained during the peer review process for your own or another's advantage, or to disadvantage or discredit others" (COPE Council, 2017). Uploading original manuscripts or other supplementary materials to generative AI tools may expose confidential information to external systems and therefore compromise the confidentiality expected during peer review.

2. Reviewers should not delegate substantive manuscript evaluation to AI systems, especially generative AI tools. Peer review requires human judgment, field knowledge, and accountability. Reviewers should understand that they are responsible for every comment or suggestion they provide. COPE states: "Prepare the report by yourself, unless you have permission from the journal to involve another person" (COPE Council, 2017). COPE also states more broadly that reviewers have an obligation to conduct reviews "in an ethical and accountable manner" (COPE Council, 2017).

3. Where a journal permits limited AI use, reviewers should disclose that use clearly and honestly. Even then, reviewers should ensure that the final report reflects their own expert judgment and that all comments are specific, constructive, and actionable.

4. Reviewers should also avoid providing AI-generated recommendations that they cannot justify. Recommendations should be evidence-based and supported by identifiable sources and references. COPE states that reviewers should "provide supporting evidence with appropriate references to substantiate general statements" and that "any recommendation should be congruent with the comments provided in the review" (COPE Council, 2017). COPE also states that, where additional analyses are required, reviewers should "comment and explain what additional analyses would clarify the work submitted" and distinguish essential additional investigations from those that would merely strengthen or extend the work (COPE Council, 2017).

5. Reviewers should follow the journal's established standards when writing their review reports and should not generate review reports, in part or in whole, using generative AI tools. Where permitted by the journal, generative AI may be used for limited purposes, such as refining the reviewer's own independently prepared comments for grammar and expression. For example, the editorial team of JBI Evidence Synthesis states: "Peer reviewers are alerted to the prohibition of uploading manuscripts into AI in the letter inviting them to review a manuscript. They are allowed to upload their own comments to AI for refinement in grammar and expression, which can be helpful for authors whose primary language is not English" (Dankel et al., 2026). Similarly, in advice issued in response to a case concerning the suspected use of AI by reviewers, COPE Members and COPE Council Members stated: "Reviewers should not be allowed to upload manuscripts to AI tools as this can violate confidentiality and infringe on the author's exclusive rights to the manuscript and its content" (COPE, 2026). Where a journal permits such limited use, reviewers should first ensure that the text submitted to the AI tool does not reveal confidential or identifiable information from the manuscript, including substantive details of the study that have not yet been made public, particularly where the manuscript has not been released as a preprint.

Guidance for Editors

The following guidance draws on relevant COPE guidelines and advice concerning peer review, reviewer reports, complaints, and editorial responsibility. It outlines what editors should do to prevent and respond to the misuse of generative AI tools during peer review.

1. Editors should work with publishers and other relevant stakeholders to develop and implement clear and enforceable policies on AI use in peer review. These policies should specify what must be disclosed, what levels of AI use are acceptable or unacceptable, and what actions may be taken where non-disclosure or misuse is suspected or confirmed. This is consistent with COPE's guidance on peer review and reviewer reports. COPE states that "Journals have an obligation to provide transparent policies for peer review" (COPE Council, 2017). COPE also recommends that "Journals should have clear guidelines for reviewers on what is acceptable and unacceptable in a reviewer report regarding tone, language, and content" (COPE Council, 2021).

2. Where a review report appears vague, generic, inconsistent, or suggestive of inappropriate AI use or overreliance, editors should assess the report and, where justified, reject it, request clarification, or seek a new review in line with established journal guidelines. Although this may be time-consuming and may slow down the peer review process and publication timeline, editors should prioritise seeking a new review rather than passing unreliable reports to authors. COPE notes that the editor "is responsible for ensuring that authors receive useful and professional feedback and advice" (COPE Council, 2021). Where a review does not comply with journal guidelines and adjustment is needed, COPE states: "Ideally, any edits of the review should be the result of collaboration with the reviewer by giving them the opportunity to revise the report themselves to comply with the journal's guidelines" (COPE Council, 2021).

3. Editors should also understand that authors may raise concerns about the quality of the review reports they receive. Such concerns should be taken seriously and addressed fairly and transparently. The experience reported in Case 1 also shows why journals should have a clear process for handling such concerns. Lo Vecchio (2025) reported that, despite raising concerns that two review reports may have been generated using AI, the journal did not take an explicit position on whether generative AI had been used. The editors stated: "our journal is not the proper place to conduct a dispute on this issue" (Lo Vecchio, 2025).

Appeal Process for AI-Related Peer Review Concerns

Journals should establish a clear process for handling appeals and review-quality concerns that allows authors to raise concerns about poor-quality, vague, generic, or potentially AI-generated review reports. The process should explain how concerns will be submitted and assessed, who will review them, what evidence authors should provide, and what possible outcomes may follow, including requesting clarification from reviewers, obtaining an additional independent review, or reconsidering the editorial decision where appropriate.

This is consistent with COPE's guidance that "Journals should have a clearly described process for handling complaints against the journal, its staff, editorial board or publisher" (COPE Council, 2022). COPE also

recommends that journals “have a process for author appeals against editorial decisions” and “have processes to investigate and manage editor, reviewer, or staff misconduct” (COPE Council, 2022).

STEP 1: Submission of Concern or Appeal

Authors who have concerns about the quality of a review report should submit their concerns in writing to the Editor-in-Chief or the journal’s designated editorial contact. Alternatively, journals may provide a downloadable form for submitting such concerns or appeals. The concern or appeal should normally be submitted within a specified period after the author receives the peer review reports or decision letter, such as within 30 days.
The submission should include:

- The manuscript title or reference number.
- A clear explanation of the concern.
- Specific examples from the review report.
- Any supporting evidence showing why the review may be vague, generic, inaccurate, disconnected from the study, or potentially AI-generated.
- A statement explaining how the review may have influenced the editorial decision.

STEP 2: Initial Editorial Assessment

The Editor-in-Chief or designated editor should acknowledge receipt of the concern within a reasonable period, such as 7 working days. The editor should then conduct an initial assessment to determine whether the concern is sufficiently substantiated to warrant further review. At this stage, the editor may decide that no further action is required, particularly where the concern reflects only disagreement with the reviewer’s opinion rather than substantiated concerns that the review is of poor quality, vague, generic, inaccurate, disconnected from the manuscript, or potentially AI-generated.

STEP 3: Independent Assessment

Where the concern is sufficiently substantiated to warrant further review, the case should be assessed by an editor who was not directly involved in the original decision, or by a small appeals or review-quality committee. This would help ensure fairness and reduce the risk of bias.

Possible Actions

Depending on the findings, the Editor-in-Chief or designated editor may take one or more of the following actions:

1. Request clarification or revision of the review report. Where the review report contains unclear, inaccurate, unsupported, or irrelevant comments, the journal may request clarification from the reviewer or give them an opportunity to revise the report in accordance with the journal's guidelines.

2. Obtain an additional independent review. Where the review report is found to be unreliable, inadequate, or potentially compromised by inappropriate AI use, the journal may invite another qualified reviewer to independently assess the manuscript.

3. Reconsider the editorial decision. Where the assessment establishes that a poor-quality or unreliable review report may have influenced the editorial decision, the journal may reconsider the decision, taking into account the findings of the assessment and any additional independent review.

4. Dismiss the concern or appeal. The concern or appeal may be dismissed where the independent assessment finds that the review report is sufficiently justified and that the author's concerns reflect disagreement with the reviewer's academic judgment rather than identifiable problems with the quality, accuracy, or reliability of the report.

5. Remove the reviewer from the review process or reviewer database. The journal may remove the reviewer from the review process or reviewer database if it is established that they have provided AI-generated review reports or feedback in clear violation of journal policy. This shows the importance of having clear, accessible policies in place. This aligns with COPE's guidance that journals should "remove from the journal's database any reviewers who consistently produce discourteous, poor quality or late reviews" (COPE Council, 2011).

6. Refer serious or repeated reviewer misconduct to the relevant institution. In exceptional cases involving serious or repeated reviewer misconduct, the journal may consider contacting the reviewer's institution or relevant research integrity office. This may be appropriate where, for example, a reviewer has uploaded a manuscript to an external generative AI system in violation of journal policy, misused confidential information, or repeatedly breached the journal's peer review policy. This is consistent with COPE's guidance on cooperation between research institutions and journals in handling research integrity and publication misconduct cases, which recommends that journals inform institutions when they suspect misconduct by researchers and provide supporting evidence (COPE Council, 2024a).

STEP 4: Communication of the Outcome

Following the assessment, the journal should communicate the outcome to the author, explaining whether the concern or appeal was upheld, partially upheld, or dismissed, and outlining any actions taken to address the matter, while respecting reviewer confidentiality.

Templates for Editorial Correspondence

Journals may draw on existing templates when communicating with reviewers, authors, and institutions about concerns relating to peer review. For example, COPE's *Template Letters* includes a template titled "Suspected reviewer misconduct" that editors can adapt when contacting reviewers about suspected breaches of confidentiality, inappropriate AI use, or other concerns relating to their review reports. The template illustrates how editors can identify the manuscript, explain the concerns and supporting evidence, refer to relevant journal policies, request clarification from the reviewer, and specify a deadline for responding.

Journals should adapt such templates to the circumstances of each case and their established editorial policies (COPE Council, 2024b).

AI Policy Templates for Diamond Open Access Journals

Journals developing or revising policies on the use of generative AI may consult and adapt relevant policy templates and guidance from the following resources:

1. Quality in Diamond Open Access Publishing: guidelines, policies and templates - https://doi.org/10.5281/zenodo.17404838

This resource provides practical guidance and adaptable policy templates for Diamond Open Access journals, including a journal policies template with sections on editorial responsibilities, peer review, complaints and appeals, and the use of large language models and generative AI. It takes into account specific challenges faced by Diamond OA journals in Africa (Kuchma & Ševkušić, 2025).

2. Open Library of Humanities Artificial Intelligence (AI) Policy - https://www.openlibhums.org/site/ai-policy/

This policy provides guidance for authors, peer reviewers and editors on acceptable and unacceptable uses of generative AI in scholarly publishing. It addresses disclosure of substantial AI use, human responsibility for AI-assisted content, the use of AI in editorial decision-making and peer review, and the need for reviewers to rely on their own expertise rather than using generative AI to bypass substantive assessment (Open Library of Humanities, 2026).

3. AUA Pan-African Journals Policy on the Use of Artificial Intelligence (AI) - https://journals.aua.ke/ajhes/AIPolicy

This policy provides guidance for authors, peer reviewers and editors on the responsible use of AI in submission, review and publication. It addresses disclosure and accountability for authors, confidentiality and the use of AI during peer review, and human responsibility for editorial decisions (Adventist University of Africa, n.d.).

Monitoring the Operational Impact of AI Policies

As noted by a member of the CoP, their journal had recently used several of the sources cited in this resource to train its internal editors and reviewers on responsible AI practices. The member noted that, following the training, they observed "a measurable increase in rejections alongside a decline in review responses." After introducing AI policies or responsible-AI training, journals should therefore look at what happens operationally, not only whether authors or reviewers comply with the new requirements. Journals should

monitor whether the introduction of new AI policies affects reviewer participation, editorial decisions, the quality of review reports, or the time required to complete peer review**.**

Key Operational Metrics to Monitor Following the Introduction of AI Policies or Responsible-AI Training

Journals should monitor the following indicators before and after introducing AI policies or responsible-AI training to assess possible changes in their peer review workflows:

1. Reviewer engagement: Track reviewer invitation acceptance rates and the average time reviewers take to accept or decline invitations.

2. Review volume: Monitor the number of completed review reports over a defined period.

3. Editorial outcomes: Track changes in manuscript acceptance and rejection rates before and after introducing AI policies or responsible-AI training.

4. Turnaround times: Measure the time taken from manuscript submission to the first editorial decision and from reviewer acceptance to submission of the completed review report.

5. Review quality: Assess whether review reports contain specific, constructive, and actionable feedback, including whether reviewers adequately identify methodological weaknesses and justify their recommendations.

Where journals observe changes in these indicators, editors should investigate the possible reasons for those changes, including whether they are related to newly introduced AI policies or responsible-AI training. Editors should also consider other factors, such as changes in manuscript submission volumes, reviewer availability, and editorial practices, before deciding whether adjustments to their policies or workflows are necessary.

Journal-Level Considerations for AI-Assisted Peer Review

Is AI Assistance Necessary? Keeping Human Judgment at the Centre of AI-Assisted Peer Review

Journals should first consider whether AI assistance is necessary in their peer review process. Where submission volumes are manageable, journals may be able to conduct peer review effectively without AI assistance, while introducing such tools may create additional concerns around confidentiality, transparency, accountability, and review quality. AI should therefore be adopted in response to a clearly identified need rather than simply because the technology is available.

Where a journal permits the use of AI tools during peer review, human judgment should remain central to the review process. AI tools should support, rather than replace, the reviewer's own assessment and decision-making. This is consistent with ICMJE guidance, which states that "humans are ultimately responsible for

reviewing and ensuring the accuracy of any content generated with assistance of AI" and that reviewers who use AI should ensure that the content is appropriate and valid (International Committee of Medical Journal Editors [ICMJE], 2026).

Where a journal has decided to permit limited use of AI tools during peer review, such as refining the grammar and expression of independently prepared review comments, locally hosted large language models may offer a more privacy-preserving option than public or commercial AI systems because manuscript-related information can remain on the user's device. For example, LM Studio allows compatible large language models to run locally and operate offline once the required models have been downloaded (LM Studio, n.d.). However, this requires the use of locally running models rather than cloud-based services. Local deployment also does not remove the need for human judgment, reviewer accountability, disclosure where required, or compliance with the journal's AI policy.

Key Recommendations for Diamond Open Access Journals

Editors and publishers of Diamond Open Access journals should consider implementing the following:

1. A clear policy stating that manuscripts and other confidential review materials must not be uploaded into public or commercial AI systems.

2. A clear policy stating that reviewers are accountable for the review reports and recommendations they provide, including any content generated or refined using AI tools.

3. Clear editorial authority to reject review reports that are vague, generic, inconsistent, or otherwise fail to meet the journal's review standards. Where AI-generated or AI-shaped feedback is suspected, editors should assess the report, request clarification from the reviewer and, where appropriate, reject the review or seek a new one.

4. A well-structured process for authors to raise concerns about poor-quality, vague, generic, or potentially AI-generated review reports, together with clear procedures for assessing and resolving such concerns.

Conclusion

AI-assisted peer review should not be treated simply as a way to reduce reviewer workload or speed up the peer review process. Its use can affect the quality of reviews and, subsequently, the quality of editorial decisions and published research. Reviewers who use AI tools to generate review reports may unknowingly pass AI-generated or AI-reframed proprietary methods, code, or procedures to authors without knowing whether those suggestions were drawn from copyrighted, proprietary, or otherwise protected third-party material. Authors may then unknowingly incorporate such suggestions into revised manuscripts. These risks make clear policies, reviewer accountability, human oversight, and transparent processes for authors to raise concerns essential.

For Diamond Open Access journals, AI tools should be incorporated into editorial workflows only where there is a clearly identified need. Where manuscript submission volumes are manageable, journals may be able to conduct peer review effectively without introducing AI assistance. Where AI tools are used, this should be under conditions that protect confidentiality and keep human judgment at the centre of peer review. Journals should publish clear policies stating that manuscripts and other confidential review materials must not be uploaded into public or commercial AI systems and that reviewers remain accountable for the review reports and recommendations they provide. This aligns with COPE's guidance that journals should have transparent peer review policies and that reviewers should conduct reviews in an ethical and accountable manner.

Recommended Readings and Resources

- Who ensures the integrity of the editor? (Advice from COPE Members) - https://publicationethics.org/guidance/case/who-ensures-integrity-editor
- Possible breach of reviewer confidentiality (Advice from COPE Members) - https://publicationethics.org/guidance/case/possible-breach-reviewer-confidentiality
- 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
- Artificial intelligence (AI) in decision making (Advice from COPE Council) - https://publicationethics.org/topic-discussions/artificial-intelligence-ai-decision-making
- Artificial intelligence (AI) and fake papers (Advice from COPE Council) - https://publicationethics.org/topic-discussions/artificial-intelligence-ai-and-fake-papers
- Editors suspect that reviewers are using artificial intelligence (Advice from COPE Council) - https://publicationethics.org/guidance/case/editors-suspect-reviewers-are-using-artificial-intelligence
- Reviewer suspects use of AI by an author (Advice from COPE Council) - https://publicationethics.org/guidance/case/reviewer-suspects-use-ai-author
- In safe hands: Human-led publishing and where AI can help - https://worldebhcday.org/blog/2026/safe-hands-human-led-publishing-and-where-ai-can-help
- Death of a reviewer or death of peer review integrity? the challenges of using AI tools in peer reviewing and the need to go beyond publishing policies - https://doi.org/10.1177/17470161231224552

- AI detection for peer reviewers: Look out for red flags - https://www.sagepub.com/explore-our-content/blogs/posts/sage-perspectives/2025/06/11/ai-detection-for-peer-reviewers-look-out-for-red-flags
- AI in Peer Review: A Recipe for Disaster or Success? - https://asm.org/articles/2024/november/ai-peer-review-recipe-disaster-success
- EASE Recommendations on the Use of AI in Scholarly Communication - https://docs.google.com/document/d/1WmBratJW1UovKxTEqfPjM8iMeCaAKpRI5VYLxdYkXrs/edit?usp=sharing
- Conversations with COPE (Beyond detection: Responsible use of AI across peer review and authorship podcast) - https://publicationethics.org/news-opinion/ethics-ai-peer-review-podcast
- Best Practices for Using AI Tools as an Author, Peer Reviewer, or Editor - https://doi.org/10.2196/51584
- If a peer reviewer used AI to summarize my paper, will it still be a fair review? - https://www.editage.com/insights/if-a-peer-reviewer-used-ai-to-summarize-my-paper-will-it-still-be-a-fair-review
- AI dilemmas in scholarly publishing: insights beyond the Forum - https://publicationethics.org/news-opinion/ai-dilemmas-scholarly-publishing-insights-beyond-forum
- From Detection to Disclosure - Key Takeaways on AI Ethics from COPE's Forum - https://scholarlykitchen.sspnet.org/2025/08/25/from-detection-to-disclosure-key-takeaways-on-ai-ethics-from-copes-forum/
- ICMJE Recommendations: Use of AI by Reviewers - https://www.icmje.org/recommendations/browse/artificial-intelligence/ai-use-by-reviewers.html
- Elsevier journal under fire over 'AI-generated' review comments - https://www.timeshighereducation.com/news/elsevier-journal-under-fire-over-ai-generated-review-comments
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