

The CASE Webinar
Wednesday, 29 October 2025

Utilizing AI Tools in Journal Publishing

Journal Publishing and Artificial Intelligence

2025.10.29

Tae-Sul Seo

Secretary-General

Council of Asian Science Editors (CASE)



2024 Conference



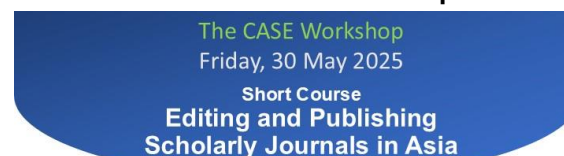
2023 Webinar



Peer review is one of the most essential processes in scholarly journal publishing. Various attempts have been made recently to improve the peer review process while open science is focused in scholarly societies. In this webinar, we would like to look at the challenges, and ethical guidelines of peer review, and introduce examples of innovative peer review systems.

• Program: Challenges in Peer Review Tae-Sul SEO Secretary-General, CASE/Senior Research Fellow, KISTI, Korea Ethical Guidelines for Peer Review Cheol-Heui YUN Vice President, KCSE/Professor, SNU, Korea Open Research and Peer Review System Liz ALLEN Director, Strategic Initiatives-F1000, UK Q&A Moderator Basil D'SOUZA President, CASE/President, Editage Korea at Cactus Communications, India	• Time: New Delhi 11:30 AM Jakarta/Bangkok 13:00 PM Kuala Lumpur/Singapore 14:00 PM Seoul/Tokyo 15:00 PM • Register at: https://forms.gle/hbvrYd5hKnaVn9jV8 The Zoom link will be emailed to registered participants.
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2025 Workshop



Scholarly journal editors and publishers need to learn about many topics of journal publishing such as peer review, manuscript editing, language editing, archiving, indexing, etc. Therefore, CASE has prepared a short course on the topics for Asian journal editors. This talk is about academic publishing and scholarly journals. It is addressed to journal editors and to scholars interested in knowing about academic publishing in Asia.

Program: Session 1: Digitization and Academic Journals (50 minutes) <i>How digitization changed global English-language academic publishing and scholarly publishing in Asia, leading to a three-way division between commercial, not-for-profit, and open access publishers.</i> Break (10 minutes) Session 2: Editorial Process (50 minutes) <i>What journal editors do, their role in shaping the identity of a journal, and the possible impact of artificial intelligence.</i> Break (10 minutes) Q&A Session (1 hour) <i>Participants are invited to submit questions on the chat box during the talk.</i> Lecturer Dr. Paul KRATOSKA <i>Paul Kratoska is Managing Director of Ampersand Blue Editorial Services. He is an experienced journal editor and former director of the National University of Singapore Press.</i> Moderator Mr. Itaru SATO <i>Chair, External Affairs Committee of CASE/Fellow, JST, Japan</i>	• Time: New Delhi 11:30 AM Jakarta/Bangkok 1:00 PM Kuala Lumpur/Singapore 2:00 PM Seoul/Tokyo 3:00 PM • Register at:  The Zoom link will be emailed to registered participants.
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2025 Webinar



Artificial Intelligence (AI) has become essential in scholarly journal publishing. AI is used at every stage of journal publication. In this webinar, we can learn how to apply AI tools in journal publishing, especially in JATS XML production and the editorial process.

Program: Journal Publishing and AI (20 minutes) Tae-Sul Seo, Secretary-General of CASE, Korea JATS XML Production Using AI (30-minutes video play) Varun Singh, Delivery Manager, iactec, USA Smarter Editorial and Peer Review Processes with AI (30 minutes) Shilpi Mehra, Director, Product, Cactus Communications Q&A <i>Participants are invited to submit questions on the chat box during the talk.</i> Moderator Dr. Zuriati Zakaria President, CASE/IKM, Malaysia	• Time: New Delhi 11:30 AM Jakarta/Bangkok 13:00 PM Kuala Lumpur/Singapore 14:00 PM Seoul/Tokyo 15:00 PM • Register at: https://www.asianeditor.org/registration-for-2025-case-webinar/ The Zoom link will be emailed to registered participants.
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- 01 AI Wave and Research
- 02 Tasks of Journal Publishers
- 03 AI Tools for Journal Publishers
- 04 Concluding Remarks

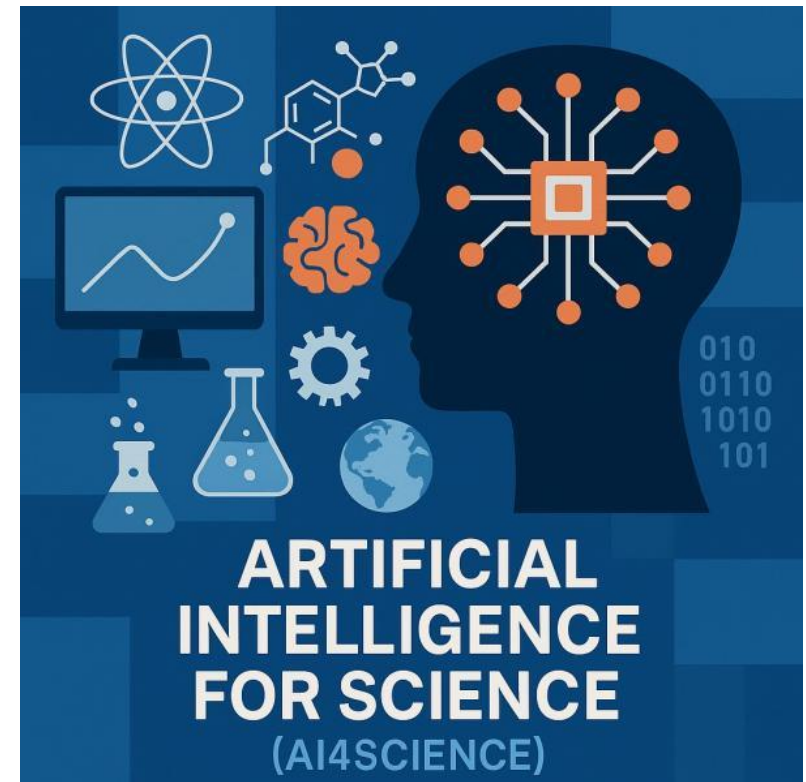
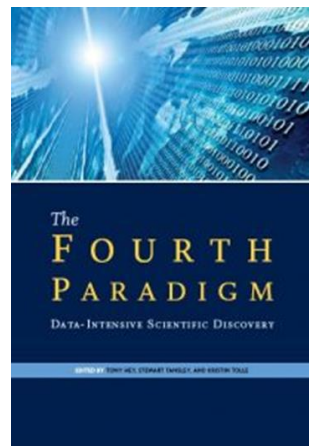
1. AI Wave and Research



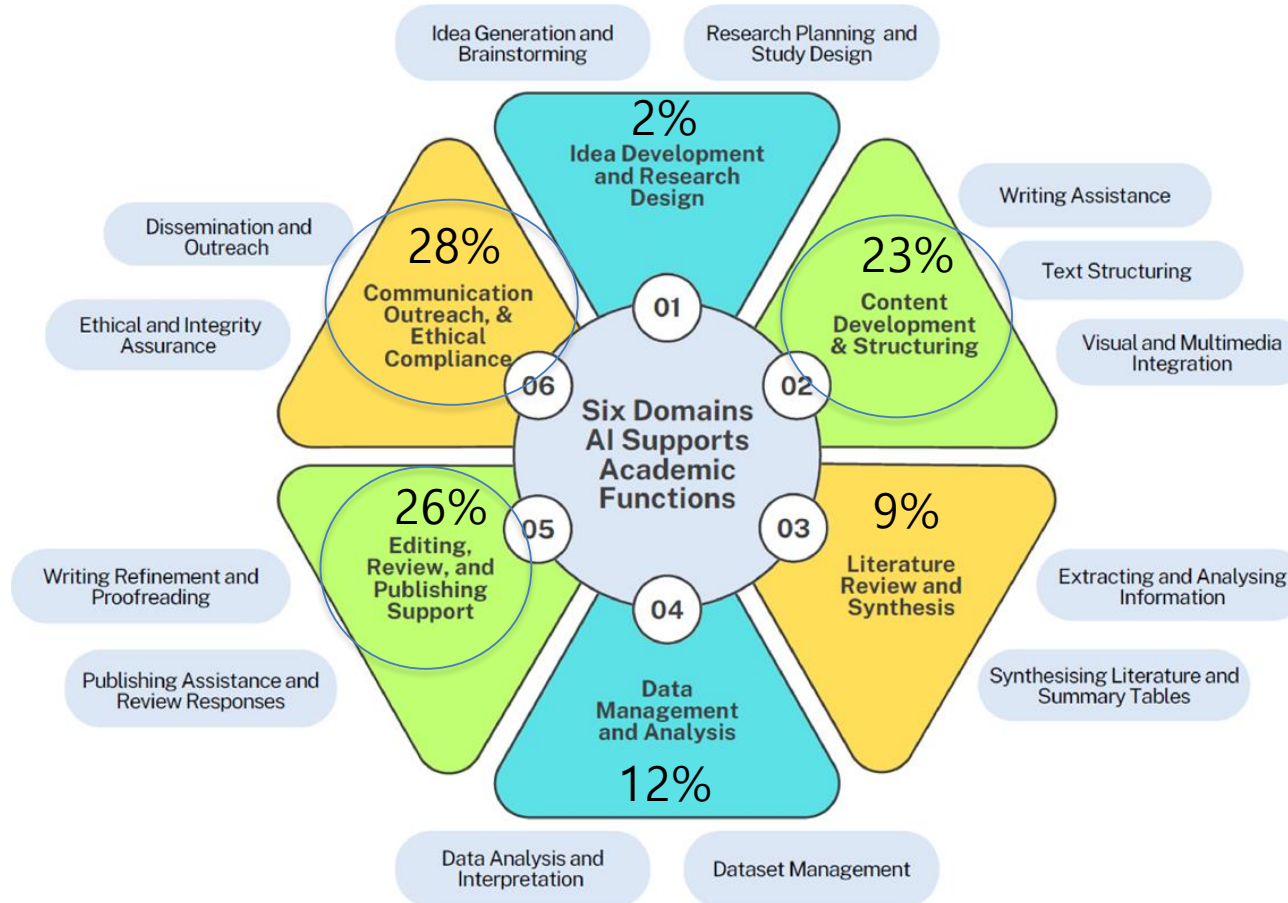
The Fifth Paradigm of Scientific Discovery

- First : Experiment (Several thousand years ago)
- Second : Theory (Several hundred years ago)
- Third : Computation (Some decades ago)
- Fourth : Data-intensive (Some years ago)
- **Fifth : Artificial Intelligence (Today)**

Tony Hey et. al., The Fourth Paradigm: Data-Intensive Scientific Discovery, 2009



Using AI in Academic Writing and Research



Mohamed Khalifa, Mona Albadawy, Using artificial intelligence in academic writing and research: An essential productivity tool, Computer Methods and Programs in Biomedicine Update, Volume 5, 2024, 100145

Benefit and Concern

“Now is when the science publishing industry must work together to use AI to its full potential while implementing safeguards for research and peer review integrity.”

Enhancing quality of language, structure, and analysis

Raising questions of authorship, originality, and transparency

Rahkola A, Gray T. Assessing AI policies in scientific publishing: are we prepared for the future? Sci Ed. 2025;48:110-112.

2. Tasks of Journal Publishers



Tasks Overview

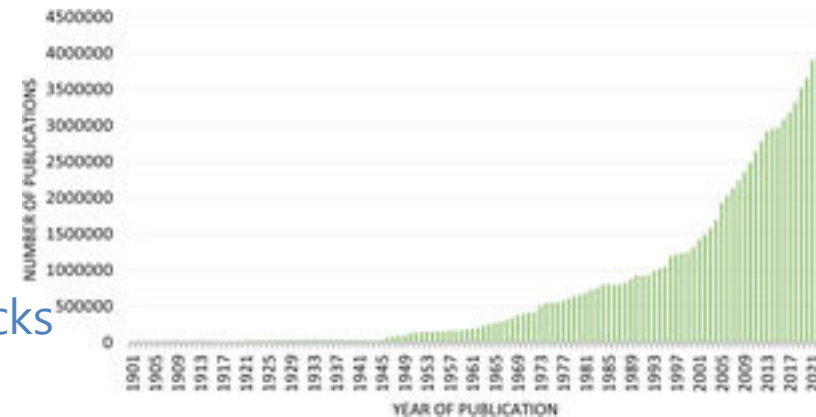
- Sourcing
 - Secure enough number of quality article submission
 - Invite editors and reviewers
- Production
 - Manuscript editing
 - Data processing and management (DOI, XML, Data Repository, ...)
- Marketing
 - Distribution and Promotion
 - Ethical considerations (Plagiarism and AI generated text screening, ...)

Tasks of EIC

- Basics
 - Preparing the aims and scope, and Guidelines (Authors & Referees)
 - Tracking submissions/Arranging procedures for processing manuscripts
- Selecting
 - Reading to select suitable articles (Topic, Geographic)
- Improving
 - Finding/Allocating reviewers avoiding conflicts of interest
 - Providing authors feedbacks to improve the quality of manuscripts
 - Providing copyediting services
- Screening
 - Screening plagiarism and AI generated text
 - Checking copyright infringement

Increasing Burdens of Editors

- Difficulties in finding reviewers
 - Average number of review invitations required to obtain one review
 - 1.94 (2013) > 2.39 (2017) > 3.60 (2025)
 - The burdens of editors increase.
- AI can help editors
 - Manuscript Screening - initial submission checks
 - Reviewer Selection - finding reviewers
 - Screening plagiarism and AI generated text
 - Checking violations & misconducts
 - ...



Temporal trends in the number of scientific documents published between 1901 and 2022. Source: Scopus.

3. AI Tools for Journal Publishers



Software Tools used in Editorial Process

**REVIEWER
CREDITS**

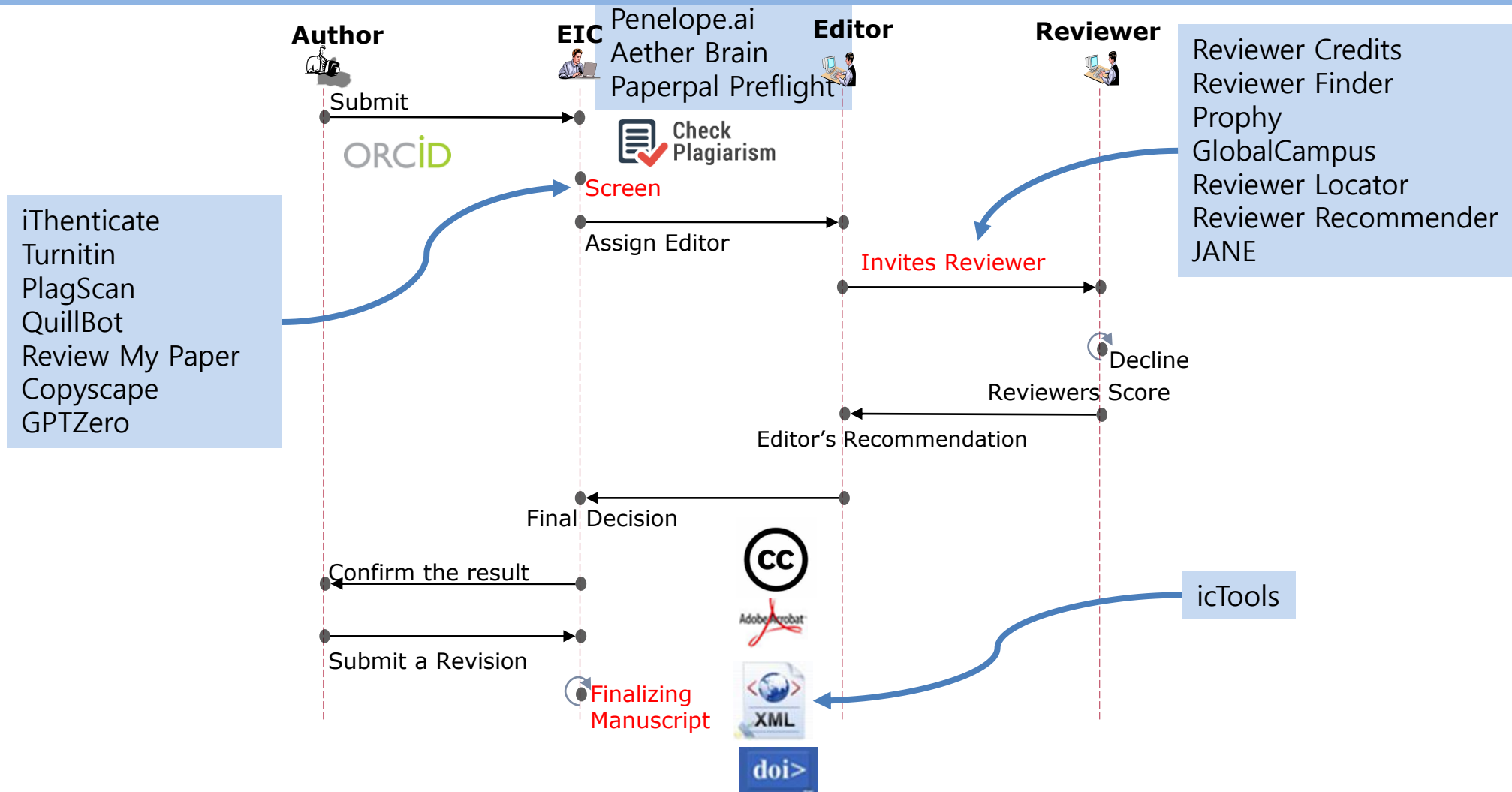
- Manuscript submission and workflow management
 - Editorial Manager/ScholarOne/Benchpress2/OJS/JAMS/...
- **Finding and managing peer reviewers (AI)**
 - Reviewer Credits/Reviewer Finder (Springer Nature)/Prophy/GlobalCampus/Reviewer Locator (WoS)/Reviewer Recommender (Elsevier)/JANE
- **Ethical compliance and detecting plagiarism (AI)**
 - iThenticate/Turnitin/PlagScan/QuillBot/Review My Paper/Copyscape/GPTZero
- Verifying authors and reviewers
 - ORCID/Publon/Scopus Author Search & Identifier/Google Scholar/ResearchGate

Software Tools used in Editorial Process

▪ Other tools (AI)

- **Penelope.ai** - verifies that manuscripts meet your journal's rules. (It has over 30 checks for ethics, conflict of interest, data sharing, and more.)
- **Aether Brain** - summarizes manuscripts and offers insights. (It has tools for 'chatting' with the manuscript and answering your questions based on the manuscript.)
- **Paperpal Preflight** - AI checks for research integrity, language, and compliance across: Full manuscripts (incoming submissions, post first revision, pre-production, post publication) & Conference abstracts (integrity risks, author analysis)
- **icTools** – automatically generate high-quality XML from the Word content.

Software Tools used in Editorial Process

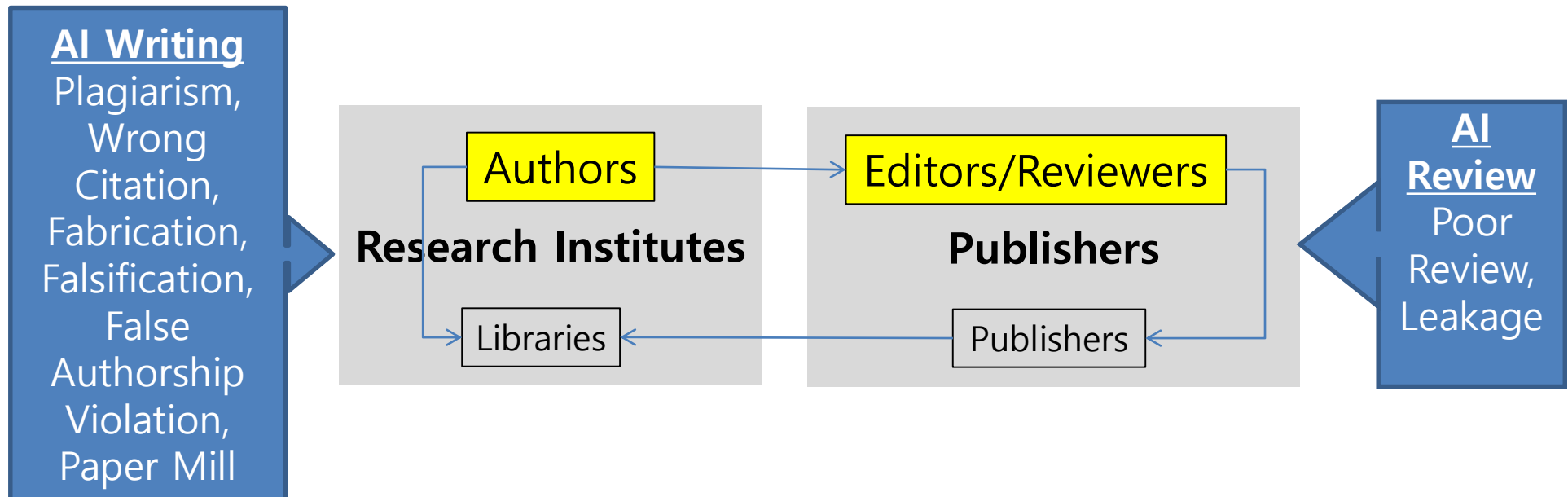


4. Concluding Remarks



Journal policies for AI are Required.

- The use of AI is inevitable.
- Clear and detailed AI policies are crucial.



4. Concluding Remarks

Journal Policies for Authoring Paper Using AI

Assessing AI Policies in Scientific Publishing: Are We Prepared for the Future?

Journal	Policy	Specific guidance
Science	Conservative	"AI tools and versions must be disclosed. Authors are accountable for accuracy, plagiarism prevention, source citation, and bias review. Inappropriate use may lead to rejection. AI-generated images and multimedia require explicit editor permission."
PLOS One	Conservative	"AI tools, validation, and impact must be disclosed. Authors must ensure AI-generated text is accurate, valid, plagiarism-free, properly cited, and reflects their ideas. Data fabrication or misrepresentation using AI is prohibited. Noncompliance may result in rejection, retraction, editorial notices, and notification to authors' institutions."
Lancet	Conservative	"AI can enhance readability and language under human supervision, with mandatory disclosure of model names, versions, and prompts. Use is limited to spelling and grammar checks in specific sections and must not process unpublished research."
AHA journals	Moderately conservative	"Authors may use AI tools for writing if documented, taking responsibility for accuracy, validity, and originality. AI tools cannot be authors. Grammar and spelling tools are exempt. AI must not alter image data in figures."
JAMA	Moderately conservative	"Authors must report AI tool, detailing name, version, manufacturer, use dates, and utilization description. For research, follow reporting guidelines, describe AI use in study design, address bias, and detail datasets, models, and evaluation metrics."
Nature	Moderately Liberal	"Document AI use in the Methods section, except AI-assisted copy editing. AI-generated images are generally prohibited. Disclose non-generative AI tools for image manipulation in captions."
NEJM AI	Moderately liberal	"Authors must disclose AI-assisted technologies and outputs, ensuring work accuracy, integrity, and originality. They should review AI-produced content to prevent errors or bias, ensure no plagiarism, and provide proper attribution. AI-generated material cannot be cited as a primary source."
BMJ	Liberal	"Authors must transparently disclose AI usage, detailing technology, purpose, and application. AI cannot be an author; authors are responsible for accuracy and originality. BMJ may screen for AI content and reject or alter if inadequately declared. AI-generated content is not prohibited."

Rahkola A, Gray T. Assessing AI policies in scientific publishing: are we prepared for the future? Sci Ed. 2025;48:110-112.

Journal Policies for Peer Review using AI

AI use in peer review – journal policies

Journal	Policy	Specific guidance
Science	Conservative	"Use of large language models and other generative AI tools is not allowed. The reviewer is responsible for writing their own review"
PLOS One	Conservative	"reviewers should not upload submissions to web platforms, databases, generative AI tools, or other services."
Lancet	Conservative	"Reviewers should not upload the manuscript, or any part of it, into an AI tool as this may violate the authors' confidentiality and proprietary rights"... "reviewers should not upload their peer review comments into an AI tool"
AHA journals	Conservative	"Reviewers should not upload any part of the manuscript, its associated files, or reviewer comments to any automated assistive writing technologies and tools...Doing so would violate the confidentiality agreement between the authors and the journal"
JAMA	Moderately conservative	"Entering any part of the manuscript or abstract or the text of your review into a chatbot, language model, or similar tool is a violation of our confidentiality agreement....[if AI is used] as a resource during your review...provide a description of the content that was created [and the tool]"
Nature	Moderately conservative	"peer reviewers do not upload manuscripts into generative AI tools. If any part of the evaluation of the claims made in the manuscript was in any way supported by an AI tool, we ask peer reviewers to declare the use of such tools transparently in the peer review report."
NEJM AI	Moderately liberal	"Reviewers must maintain the confidentiality of the manuscript as outlined above, which may prohibit the uploading of the manuscript to software or other AI technologies where confidentiality cannot be assured."
BMJ	Liberal	"reviewers should preserve the confidentiality of the peer review process by not putting unpublished manuscripts that they are reviewing for BMJ Journals (or information about them) into publicly available AI tools where the security of the confidential information cannot be guaranteed."

Rahkola A, Gray T. Assessing AI policies in scientific publishing: are we prepared for the future? Sci Ed. 2025;48:110-112.



THANK
YOU