

Peer Review

Review of: "The Role of Artificial Intelligence in the Lifecycle of Scientific Manuscripts: Authoring, Reviewing, and Editorial Selection"

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While the discussion about citation hallucination and algorithmic bias is important, the manuscript occasionally presents these risks in a deterministic tone.

For example, the claim that hallucination is a “fundamental feature” of LLMs may oversimplify current technological progress, including hybrid retrieval-based systems and verified knowledge integration approaches.

Suggested Improvement:

The author should:

Include discussion of emerging mitigation strategies

Provide balanced coverage of ongoing improvements in AI verification systems

Avoid deterministic statements where empirical variability exists

Limited Discussion of Discipline-Specific Variability

The manuscript largely treats peer review as a uniform process across scientific disciplines. However, AI performance and peer review challenges vary considerably between fields (e.g., biomedical vs. theoretical sciences vs. computational sciences).

Suggested Improvement:

Include discussion on:

Field-dependent applicability of AI review tools

Differences in methodological verification complexity across disciplines

Examples from diverse research areas

Economic Model Analysis Needs Quantitative Support

The economic arguments regarding reviewer compensation and publishing economics are insightful but remain largely conceptual.

Suggested Improvement:

Strengthen this section by including:

Comparative cost analyses of current APC models

Economic modeling or scenario estimates

Evidence from journals implementing compensated review systems

Accountability and Legal Responsibility Section Needs Expansion

The manuscript appropriately highlights accountability issues but does not fully explore legal frameworks or regulatory trends.

Suggested Improvement:

The author should expand discussion of:

Regulatory developments (e.g., international AI governance frameworks)

Liability distribution between publishers, authors, and AI developers

Case examples or policy precedents

Declarations

Potential competing interests: No potential competing interests to declare.