

Editorial



Artificial Intelligence and Accountability in Scientific Writing: The Author's Responsibility

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Cite this article as: Akgün M. Artificial intelligence and accountability in scientific writing: the author's responsibility. *Thorac Res Pract.* 2026;27(4):198-199

Received: 17.07.2026

Revision Requested: 20.07.2026

Accepted: 20.07.2026

Publication Date: 24.07.2026

Generative artificial intelligence (AI) can now draft scientific text, not merely polish it. That single capacity has shifted the debate from convenience to a harder question: when a machine helps produce a manuscript, who answers for it?

The concern is not abstract. Large language models generate output from statistical patterns in language rather than from verified fact, so nonexistent studies, fabricated authors, and distorted claims can enter the literature. The scale is now documented. An audit of more than 2.5 million biomedical papers in the PubMed Central open-access corpus found that, by early 2026, roughly 1 in 277 papers cited a study that does not exist—a more than 12-fold rise since 2023.¹ This is a measurable harm to the reliability of the published record, not a hypothetical risk.

The obvious countermeasure—AI text detectors—is unreliable. These tools are biased against researchers who are not native English speakers, misclassifying much of their original writing as machine-generated; in one evaluation, detectors labeled more than half of essays by non-native writers as AI-produced.² Detector output cannot stand as sole evidence. The remedy therefore does not lie in better surveillance but in placing responsibility where it belongs: with the human author.

That is where the real question sits. When the sentences, the arguments, and even the structure of a paper are shaped by AI, is the human still its author? The classic ship-of-Theseus paradox frames the problem: what matters is not how many parts are replaced, but which parts, and by whom.³ Superficial language editing and the wholesale reconstruction of an argument are ethically different acts. The researcher who poses the question, makes the scientific choices, develops the original claim, and vouches for every result is the author. AI does not assume that intellectual responsibility.

Editors and publishers are converging on this principle. In its January 2026 update, the International Committee of Medical Journal Editors addressed AI in a dedicated section: authors must disclose the tool and its purpose in both the cover letter and the manuscript; they bear full responsibility for the accuracy, originality, citations, and potential bias of any AI-assisted output; AI must not be listed as an author or cited as a primary source; and editors and reviewers must not upload confidential submissions to general-purpose AI tools.⁴ The Committee on Publication Ethics states plainly that AI cannot be an author because it cannot take responsibility for the work,⁵ and the World Association of Medical Editors offers a comparable framework.⁶ Publishers translate these principles into practice—Elsevier, for example, holds that AI is no substitute for human critical thinking, requires authors to verify all sources, and mandates a disclosure statement before the reference list.⁷

Disclosure, however, must do more than name a tool. A practical framework recommends specifying five elements: the content affected, the action taken, the tool and its version, the purpose of use, and how human oversight was exercised.⁸ National science agencies are formalizing the same expectation, as in Türkiye's TÜBİTAK guidance on the responsible use of generative AI (version 04, January 2026).⁹ A single sentence often suffices: the language of a defined section was

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reviewed with a named tool and version; every suggestion was assessed by the authors; all scientific claims and citations were verified against original sources; and the authors accept full responsibility for the final content.

Used this way, AI is not something to exclude from scholarship but something to use well. Effective use begins with a clearly specified prompt, favors a sectioned rather than all-at-once workflow, matches the right tool to each stage, and—above all—subjects every output to human verification. The discipline is verification, not delegation. Looking ahead, AI-assisted “living” evidence synthesis—systematic reviews updated automatically and published on the web—promises more current evidence, but will make transparent reporting standards, such as the PRISMA extension for living systematic reviews, more necessary rather than less.¹⁰ As speed increases, the need for oversight deepens.

The question, then, is not whether to use AI but how. The technology is already reshaping academic work, from helping non-native English speakers cross the language barrier to assisting statistical analysis, and those who ignore it will be increasingly disadvantaged. But the price of that transformation must not be the loss of original perspective, critical thought, and accountability to standardized output. AI is a powerful instrument used under human supervision, not a substitute for the author. However much a text is shaped by the tool, the person who takes responsibility—and signs it—remains the author.

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