

Towards a culture of ethical engagement of artificial intelligence in research

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Over the years, artificial intelligence (AI) tools have become increasingly used for literature reviews, data processing, and manuscript drafting across various domains, including the health and social sciences. These AI tools offer multiple advantages, namely reduced time burden and the ability to use freed time to pursue new avenues. However, the use of AI raises questions about authorship, accountability, plagiarism, bias, and trust.¹ Journal editors, policy makers, and funders have issued guidelines in response, but most have remained decision-driven and reactive. What seems to be lacking is the education of researchers to engage with AI in meaningful, reflective ways rather than merely considering whether AI is permitted.^{2,3}

This transition from principles to practices requires more than just guidelines. It needs to develop and nurture a culture of ethical engagement with AI tools. A cultural approach does not reject the principles outright; instead, it requires translating theory into practice through daily routines, institutional norms, and professional values. This kind of cultural engagement fosters reflection, continuous dialogue, and responsibility across the research ecosystem, rather than treating ethics as a technical add-on.⁴

Cultivating such a culture begins with awareness. Researchers need to develop a clear sense of both the strengths and limitations of AI, while institutions should prioritize training that builds literacy and encourages ongoing reflection. Awareness needs to be combined with reflexivity, that is, the ability to critically assess how AI shapes research decisions and which perspectives may be privileged or excluded.⁵ This could be promoted through discussions about ethics, reflective writing, and peer review of proposed uses of AI.

Following these steps will enable researchers to specify how the AI tools were used in their research. A declaration of true transparency should include the name of the tool used, its purpose, the level of human

oversight or editing involved, and any potential risks, such as hallucinations or inaccuracies. Journals should encourage this by providing standardized AI disclosure formats, just as they have with data availability statements. Without openness, readers cannot assess the trustworthiness of research outputs. Hence, accountability will be weakened.

We must bear in mind that the responsibility for research integrity is ultimately a human duty, not a task that can be delegated to machines. The Committee on Publication Ethics has stated that only humans can be authors of research publications.⁶ The authors must maintain a clear audit trail of all steps taken, document their decision-making rationale, and assume responsibility for the generated AI outputs. Institutions can support these steps by requiring version logs and by having ethics committees review high-risk AI projects.

Further, cultural values are built through capacity building and incentive provision. Institutions should invest in training, infrastructure, and validation tools, while funders can support projects that integrate ethical reflection. Reward systems in academia, such as promotions, which are usually geared toward rapid publication, should be revised to reward transparency, fairness, and responsible innovation. Incentivizing good practice shifts researchers from compliance to commitment.⁷

Various practical strategies can be suggested at this point. Pre-registration of AI use, in which researchers document planned applications and oversight mechanisms before a study begins, enhances accountability. Logging prompts and versions creates reproducibility: internal ethics clinic or peer. Discussion forums provide space for reflection. Journalists may require appendices detailing AI engagement. Various associations and networks can curate toolkits that present checklists, case examples, and evolving standards that the funding agency can explicitly reward. Proposals that demonstrate the

thoughtful integration of AI ethics.⁴ Each of these strategies can help translate abstract principles into life-practiced norms.

A cultural approach does not eliminate or ignore the ever-discussed dilemmas of using AI for academic writing, authorship, and plagiarism. Instead, it provides a framework for honestly and consistently addressing these dilemmas. This cultural shift in ethical engagement requires shared responsibility among all stakeholders: researchers should practice reflexivity and disclose their use of AI, and institutions can further provide training programs to build AI literacy among their faculty and students. Journals and publishers can enforce AI disclosure policies and educate their reviewers. Funders can set standards for the ethical use of AI, while professional societies can convene discussions and share case studies. A culture of ethical engagement is grounded in fostering awareness, promoting reflection, and ensuring transparency, accountability, and inclusivity in research. It can only thrive if reinforced by deliberate strategies, aligned incentives, and shared commitment across the research community.

AI Use Declaration

Grammarly software was used to format and refine the final version of the manuscript.

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