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AI in Academia – Balancing between Effectiveness and Responsibility

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Abstract: In this article, I examine how Generative AI (GenAI) is shaping the contemporary academic landscape through an overview of the most widely discussed themes. I focus not only on emerging opportunities and risks for academic work, including research, writing, and publishing, with particular attention to academic integrity, authorship, and scholarly voice, but also on the broader ethical implications of AI. I make a case for more awareness, reflection, and criticality and emphasise that the significance of AI goes beyond pragmatic concerns over productivity, effectiveness, and clarity as the topic is inherently tied to broader fundamental issues of ethics and social justice in both in the real world and global academic knowledge construction. This points to the shared responsibility of both developers and users of AI.

Keywords: Generative AI; Writing for Research and Publication Purposes; Academic Publishing; Ethics.

> I believe our civilization stands on the cusp of a technological revolution with the power to reshape life as we know it. To ignore the millennia of human struggle that serves as our society's foundation, however—to merely "disrupt," with the blitheness that has accompanied so much of this century's innovation—would be an intolerable mistake. This revolution must build on that foundation, faithfully. It must respect the collective dignity of a global community.
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> — Fei-Fei Li, *The Worlds I See: Curiosity, Exploration, and Discovery at the Dawn of AI*

Key Concerns About AI in Academia

Just over a decade ago, few could have imagined that we would soon enter a new era marked by AI. Nor could we have anticipated the profound impact that Generative AI (GenAI) would have on our world, and how deeply it would become integrated into our daily life. Although the origins of AI date back to the 50s, it was only in November 2022, when OpenAI released ChatGPT to the public, that the age of AI began, turning the world upside down again, shortly after the peak of the COVID-19 pandemic – but this time in a different way. Before long, AI found its way into every sector of academia, slowly transforming not only teaching and learning but also academic research and publishing.

As a university lecturer, the topic of AI naturally comes up in my work. When I ask doctoral students in my research communication courses about their engagements with AI, they describe a range of applications across different stages of the research and writing process, such as finding relevant sources, synthesising the literature, seeking methodological guidance, visualising data, translating texts, editing manuscripts, and writing plain language summaries. Similar patterns of use were reported in a survey conducted by Wiley (2025), but most importantly, the participants wished for more explicit publisher guidelines, a clear consensus on acceptable AI uses in specific fields, more support for safe and responsible AI use, and more training. The top four barriers to engaging more with AI were ethical concerns, flaws in accuracy, privacy issues, and the lack of clarity and transparency in both the training and operational logic of AI models. This is a strong message not just for universities but also for the publishing industry, especially because journal editors also emphasise the need for clear guidelines on the acceptable use of AI, based on the research traditions of the field (Moorhouse et al., 2025). Collaboration between academic institutions, AI developers, legal experts, and policymakers is more pressing than ever (Güneş & Kaban, 2025).

The Basics of AI Literacy

Given the complexity of the topic, it is essential that researchers fully understand the basic principles behind Large Language Models (LLMs), along with their constraints and challenges. LLMs do not learn the same way as we do and can only mimic human reasoning. Since they use statistical patterns to predict output, their learning depends on training on massive amounts of data. They can generate human-like language but cannot understand meaning and intention or have deeper contextual understanding. As such, AI-generated content is not always accurate and neutral. For example, AI can "hallucinate" (note the anthropomorphism!) and state false or misleading information as facts, including fabricated references. This underscores the importance of verifying the authenticity and accuracy of AI-generated information. When summarising scientific texts, AI may also oversimplify or exaggerate findings and conclusions (*generalisation bias*, see Peters & Chin-Yee, 2025), highlighting the need for human oversight. Concerning AI and academic integrity, research shows that individual ethical beliefs play a key role in shaping students' perceptions of academic misconduct involving AI tools (Lund et al., 2025).

AI-generated content may also be unbalanced due to inherent biases in both the training data and process. We must remember that these gender, racial, linguistic, cultural, and epistemic biases reflect existing inequalities and injustice

in our world (Jenks, 2025; Kuteeva & Andersson, 2024). Thus, there is clear value in addressing broader social justice and equity issues linked to AI. For example, a meaningful discussion topic is AI from the perspective of cultural and linguistic equity in academia. Research has revealed broad range of challenges experienced by English as an Additional Language (EAL) scholars, who need to function in an English-dominant academia, leading to linguistic and other inequities (e.g., Arenas-Castro et al., 2024; Belcher, 2024). Discrimination, marginalisation, and exclusion are experienced especially by EAL scholars outside the Global North. These are systemic issues deeply rooted in academic publishing, especially in the peer review process. AI as such does not seem to improve the situation and often leads to new biases (Lepp & Smith, 2025; O'Regan & Ferri, 2025). Thus, AI calls for a mindset change and the responsibility of gatekeepers, including publishers, editors, and peer reviewers, to develop and promote policies that are based on the principles of diversity and inclusion. Note that it is not only an equity question – dismissing certain knowledges and epistemologies affects global science and collaborative knowledge construction.

Broader Ethical Implications of AI

Issues concerning the impact of AI on people and societies include questionable applications and misuse, such as in surveillance, warfare, or global migration, leading to concerns over privacy, safety, human rights, and fairness; questions of transparency, accountability, and responsibility; the impact of AI on the environment (UN, 2024) and on employment and work; and unequal access to AI and its benefits, contributing to the global digital divide. Addressing these complex topics clearly requires interdisciplinary research collaboration. Examining the relationship between AI and ethics, O'Regan and Ferri (2025) emphasise that AI lacks a normative basis for making moral judgements about injustice as it unfolds in our world (*judgemental rationality*), and instead, have a relativist position (*judgemental relativism*). Therefore, AI will likely deepen existing inequalities and injustices, limiting its potential to contribute to positive societal changes and planetary well-being. This points to the shared responsibility of both developers and users in shaping our future with AI.

AI and the Academic Publishing Industry

In response to the growing use of GenAI in academic work, academic publishers have established guidelines for responsible and ethical AI use. Although publisher policies vary and evolve over time, they share some common

principles directed towards integrity, transparency, and accountability. The use of AI is typically allowed to support writing and language editing, but the authors bear ultimate responsibility and accountability: they need to carefully review and revise all AI-generated content to ensure that it is accurate, complete, and impartial and the writing remains original. Authors are also commonly required to disclose the specific AI tool used and the purpose by including a statement in a specific section of the published work – a practice that has been critiqued from an equity perspective (Lund, 2025). Most importantly, publishers agree that AI tools cannot be credited authorship, which aligns with widely accepted authorship standards, such as the Vancouver criteria, especially the requirement that authors take responsibility for the accuracy and integrity of the work and approve the final version. Regarding the use of AI in the research process, such as for data processing, publisher policies vary, but transparency and adherence to ethical standards are always required. Interestingly, publisher practices are not always fully transparent: some publishers decided to sell part of their scholarly content to train LLMs – an emerging questionable practice in academia that raises ethical concerns (Ithaka S+R, 2025).

Related to publishing, there has been a growing debate about the unsustainability of the current peer review system, and many talk about a "peer review crisis" (e.g., Aczel et al., 2025). The number of submissions is rising, and AI seems to exacerbate this trend. This occurs alongside other systemic issues in academia, such as the massification of science, the "publish or perish" culture with its emphasis on productivity, well-being issues caused by stress and overwork, and the lack of appreciation for peer reviewing work. As a result, journals find it increasingly difficult to find a qualified peer reviewer. While AI may be a promising solution in the initial screening of submissions – and in fact, AI-assisted tools were already used for this before the advent of LLMs – it cannot replace human reviewers. Most publishers explicitly ban the use of AI in peer review due to concerns over confidentiality, intellectual property, and data privacy.

The Impact of AI on Thinking and Learning

Regarding the impact of AI integration on thinking and learning, the effects depend not only on the users' AI literacy but also on educators' technological and pedagogical skills and are mediated by contextual factors such as professional development opportunities, infrastructure, and institutional policies (Bauer et al., 2025). In my doctoral courses, the following quote generally sparks a lively discussion:

> If students do not see the need to read, engage with ideas, hone their thinking skills, and through these efforts, experience the joy of taking part in an enduring, scholarly conversation, they are missing out on the greater pleasures of fulfilment that come with (hard) work and engagement over time. (Anson & Straume, 2022, p. 6)

In fact, research suggests that bypassing deep thinking and outsourcing it to AI may lead to *cognitive debt*, meaning reduced cognitive engagement, weaker memory recall, and a lower sense of ownership and satisfaction (Kosmyna et al., 2025). This has long-term costs, including less creativity and criticality, and a greater risk of being manipulated and adopting biased perspectives.

On the other hand, some researchers emphasise the positive impacts of GenAI on learning, especially on cognition, metacognition, and epistemic agency if AI is not simply used as a tool but rather to support deep learning and co-construct knowledge (Makransky et al., 2025; Yan et al., 2025). This presupposes tasks that require engaging with AI interactively, critically, and reflectively. Others highlight the potential of AI to develop not just metacognition but also metalinguistic, metapragmatic, and metacommunicative skills, especially relevant in prompting (Jones, 2025). This has important implications as points to the central role of language when using AI. When AI is embedded in the thinking and learning process, it makes users more aware of the complexity of human language and the importance of interpersonal relationships in human communication. A critical and reflective use of AI can develop rhetorical and intercultural awareness, agency, a strong academic identity, and thus foster more effective, responsible, and ethical research communication practices.

The Impact of AI on Voice and Writing Style

Finally, the impact of AI use on writing quality is another widely discussed topic. Some studies found that LLM-generated texts differ from human generated ones in paragraph consistency, sentence length, the use of punctuation marks, and the frequency of certain words, also showing disciplinary variation (Botes et al., 2025). Although there are tools and regulations to detect the use of AI[1], it is a highly complex issue also linked to AI-literacy and personal views on style. According to Kuteeva and Andersson (2024), since LLMs lack linguistic creativity, especially across

[1] The EU's Artificial Intelligence Act (Regulation 2024/1689) introduces a risk-based regulatory framework and requires developers of high-risk AI systems to watermark all AI-generated content. This will likely increase transparency and responsible and ethical use of AI also in academic publishing.

languages, registers, and styles, they will likely lead to more homogeneity and uniformity in academic language use. In Kosmyna et al.'s (2025) study, teachers often described AI-produced texts as "soulless", lacking originality and personal insight even though they sounded academic, and the topic looked well-developed. Teachers scored these texts high for language, structure, and accuracy but low on content and uniqueness, and emphasised that they valued "individuality and creativity over objective 'perfection'" (p. 62). I believe many of us can relate to this, which draws attention to the importance of original thoughts and perspectives and a distinct voice in scholarly writing. These are even more vital in the age of AI, where the boundaries between human and machine-driven modes of writing and between human and machine voice are becoming increasingly blurred. Again, this implies the need for critical and reflective engagements with AI.

Concluding Remarks: A Call for Mindset Change

To conclude, AI presents both opportunities and risks for academia. No one can predict what the future holds, how AI will develop in the coming years and at what pace, and how it will shape human intelligence. Some predict that the impacts will be much bigger and the development much faster than the industrial revolution. Even if we maintain a positive outlook, we need to be mindful of the deepening global disparities, including various social, political, economic, and environmental inequities, calling for an interdisciplinary approach to AI grounded in ethics, social justice, and sustainability. Everyone involved in academic knowledge creation has a role in shaping the future of academia with AI. What we need is greater awareness of the inherent complexity of AI and of human language and communication, and a deeper understanding of the potential of AI to guide human intelligence not just towards more creativity and innovation, with the help of science, but also towards a shared ethical consciousness. Therefore, we all need to engage in critical and reflective thinking when we use AI and commit to ethical and responsible practices, thus contributing to building a better academia and a better world – with AI, but based on fundamental human values rather than on ideologies and practices that reproduce the current world system with all its injustice and inequalities.

References

Aczel, B., Barwich, A.-S., Diekman, A. B., Fishbach, A., Goldstone, R. L., Gomez, P., Gundersen, O. E., Von Hippel, P. T., Holcombe, A. O., Lewandowsky, S., Nozari, N., Pestilli, F., & Ioannidis, J. P. A. (2025). The

present and future of peer review: Ideas, interventions, and evidence. *Proceedings of the National Academy of Sciences*, *122*(5), e2401232121. https://doi.org/10.1073/pnas.2401232121

Anson, C., & Straume, I. (2022). Amazement and trepidation: Implications of AI-based natural language production for the teaching of writing. *Journal of Academic Writing*, *12*(1), 1–9. https://doi.org/10.18552/joaw.v12i1.820

Arenas-Castro, H., Berdejo-Espinola, V., Chowdhury, S., Rodríguez-Contreras, A., James, A. R. M., Raja, N. B., Dunne, E. M., Bertolino, S., Emidio, N. B., Derez, C. M., Drobniak, S. M., Fulton, G. R., Henao-Diaz, L. F., Kaur, A., Kim, C. J. S., Lagisz, M., Medina, I., Mikula, P., Narayan, V. P., … Amano, T. (2024). Academic publishing requires linguistically inclusive policies. *Proceedings of the Royal Society B: Biological Sciences*, *291*(2018), 20232840. https://doi.org/10.1098/rspb.2023.2840

Bauer, E., Greiff, S., Graesser, A. C., Scheiter, K., & Sailer, M. (2025). Looking beyond the hype: Understanding the effects of AI on learning. *Educational Psychology Review*, *37*(2), 45. https://doi.org/10.1007/s10648-025-10020-8

Belcher, D. (2024). The promising and problematic potential of generative AI as a leveler of the publishing playing field. *Journal of English for Research Publication Purposes*, *5*(1–2), 93–105. https://doi.org/10.1075/jerpp.00025.bel

Botes, E., Dewaele, J.-M., Colling, J., & Teuber, Z. (2025). *Initial indications of generative AI writing in linguistics research publications*. PsyArXiv. https://doi.org/10.31234/osf.io/4yvbp_v1

Güneş, A., & Kaban, A. L. (2025). A Delphi study on ethical challenges and ensuring academic integrity regarding AI research in higher education. *Higher Education Quarterly*, *79*(4), e70057. https://doi.org/10.1111/hequ.70057

Ithaka S+R (2025, August 1). *Generative AI Licensing Agreement Tracker*. https://sr.ithaka.org/our-work/generative-ai-licensing-agreement-tracker/

Jenks, C. (2025). Communicating the cultural other: Trust and bias in generative AI and large language models. *Applied Linguistics Review*, *16*(2), 787–795. https://doi-org.ezproxy.jyu.fi/10.1515/applirev-2024-0196

Jones, R. H. (2025, July 3–7). *Going mindfully meta: The place of language education in an AI powered world* [Keynote address]. International Summit on the Use of AI in Learning and Teaching Language and Other Subjects, Hong Kong Polytechnic University. http://dx.doi.org/10.13140/RG.2.2.23830.46406

Kosmyna, N., Hauptmann, E., Yuan, Y. T., Situ, J., Liao, X.-H., Beresnitzky, A. V., Braunstein, I., & Maes, P. (2025). *Your brain on ChatGPT: Accumulation of cognitive debt when using an AI assistant for essay writing task*. arXiv. https://doi.org/10.48550/arXiv.2506.08872

Kuteeva, M., & Andersson, M. (2024). Diversity and standards in writing for publication in the age of AI—Between a rock and a hard place. *Applied Linguistics*, *45*(3), 561–567. https://doi.org/10.1093/applin/amae025

Lepp, H., & Smith, D. S. (2025). “You cannot sound like GPT”: Signs of language discrimination and resistance in computer science publishing. *FAccT '25: Proceedings of the 2025 ACM Conference on Fairness, Accountability, and Transparency*, 3162–3181. https://doi.org/10.1145/3715275.3732202

Lund, B. (2024). Large Language Models are a democratizing force for researchers: A call for equity and inclusivity in journal publishers’ AI policies. *InfoScience Trends*, *1*(1), 4–7. https://doi.org/10.61186/IST.202401.01.02

Lund, B. D., Lee, T. H., Mannuru, N. R., & Arutla, N. (2025). AI and academic integrity: Exploring student perceptions and implications for higher education. *Journal of Academic Ethics*, *23*(3), 1545–1565. https://doi.org/10.1007/s10805-025-09613-3

Makransky, G., Shiwalia, B. M., Herlau, T., & Blurton, S. (2025). Beyond the “Wow” Factor: Using Generative AI for Increasing Generative Sense-Making. *Educational Psychology Review*, *37*(3), 60. https://doi.org/10.21203/rs.3.rs-5622133/v1

Moorhouse, B. L., Consoli, S., & Curle, S. M. (2025). Generative AI and the future of writing for publication: Insights from applied linguistics journal editors. *Applied Linguistics Review*. Advance online publication. https://doi.org/10.1515/applirev-2025-0021

O’Regan, J. P., & Ferri, G. (2025). Artificial intelligence and depth ontology: Implications for intercultural ethics. *Applied Linguistics Review*, *16*(2), 797–807. https://doi.org/10.1515/applirev-2024-0189

Peters, U., & Chin-Yee, B. (2025). Generalization bias in large language model summarization of scientific research. *Royal Society Open Science*, *12*(4), 241776. https://doi.org/10.1098/rsos.241776

United Nations Environment Programme (2024). *Artificial Intelligence (AI) end-to-end: The environmental impact of the full AI lifecycle needs to be comprehensively assessed.* https://wedocs.unep.org/20.500.11822/46288.

Wiley (2025). *ExplanAItions: An AI study by Wiley*. https://www.wiley.com/en-us/ai-study

Yan, L., Pammer-Schindler, V., Mills, C., Nguyen, A., & Gašević, D. (2025). Beyond efficiency: Empirical insights on generative AI’s impact on cognition, metacognition and epistemic agency in learning. *British Journal of Educational Technology*, *56*(5), 1675–1685. https://doi.org/10.1111/bjet.70000