

# Artificial Intelligence in Academia: Debating the Risks and Rewards

Dr. Ramadan Elaïess

Dept. of information studies

University of Benghazi, Libya [ramadan.elaiess@uob.edu.ly](mailto:ramadan.elaiess@uob.edu.ly)

**ABSTRACT:** *The artificial intelligence domain has matured to become a game changer in multiple industries, including the academic world. For example, AI tools can analyze data automatically, compose essays, and even write research papers. These tools increase effectiveness, accessibility, and creativity. At the same time the automation of academic work has left many questioning the rewards and risks of AI, particularly in the scholarly world. While supporters appreciate the prospects of new opportunities AI can create in research and education, detractors or opponents worry about ethical questions, biases, and the loss of fundamental scholarly traditions and culture. The goal of this paper is to assess the impacts of AI on the scholarly community, identify the opportunities, and outline the difficulties it holds. Regarding methodology, diverse resources from academic literature to case studies to expert insights were reviewed and analyzed. The paper concludes that the use of artificial intelligence in academia has both potential advantages and challenges, as AI could enhance efficiency, access, and innovation in both research and publishing, but also raises new ethical considerations and global questions.*

**Keywords:** Artificial intelligence; Academia; Scholarly research; Research ethics

## INTRODUCTION

Artificial Intelligence (AI) has revolutionized a number of fields, and the academic community is no exception. From data automation to writing research papers, AI software is being used in academia with promises of improving efficiency, accessibility, and innovation. This rapid adoption has, however, raised controversy surrounding the advantages and risks of AI in academia. While its potential to revolutionize research and learning is praised by advocates, opponents are concerned with ethical issues, bias, and the loss of traditional academic values (Batista, J. 2024). This paper looks into the multifaceted nature of AI in academia, taking into account both advantages and disadvantages. The application of AI in research is no longer a dream for the future but a reality in the present. AI programs like ChatGPT, GPT-4, DeepSeek, and other machine learning programs are already being used for literature reviews and data interpretation, manuscript writing, and peer reviews. Such an application has a number of advantages, for example, reducing time and energy for time-consuming tasks, leaving researchers to focus on high-level thought and creativity. AI can further democratize access to knowledge with the potential to break down linguistic barriers and open scholarly material to a broader audience. For example, AI-based software for translations can provide access to research published in English to speakers who are not native speakers, hence enhancing accessibility in academia (Busch, 2024). But with all that AI can do, there are several ethical and practical problems. Among them is perhaps the most important: bias in AI algorithms. AI systems learn from historical data and therefore can reflect and amplify bias in training data. This raises serious questions about whether AI-based research is fair and unbiased (Aninze, 2024). For example, a job application or research grant screening system constructed with AI can prefer one type of applicant or research subject over another and thus establish inequalities in academia today. These biases have to be countered not just with technological fixes but with a greater understanding of social and cultural contexts in which AI is being applied. Another issue is AI's place in intellectual property and authorship. Centuries-long assumptions regarding authorship are being challenged with AI programs that can create content that is increasingly indistinguishable from what a human would write. This gray area challenges who gets credit for AI-generated work and who gets intellectual property rights. Should a co-author credit be assigned to an AI software creator, or should credit be assigned to a human researcher who authored the AI program? (Ali et al., 2024). These are not theoretical questions; they have real-world implications for career advancement, funding, and academic credit. The system of peer review, which is considered to be the center of academic honesty, is being transformed with AI too. AI systems are being programmed to pre-screen submissions for plagiarism, statistical inconsistencies, and adherence to journal guidelines. Such software can enhance speed and consistency in peer review but can result in losing judgment and algorithmic error (Salman et al., 2025). AI-based peer review can further exacerbate power imbalances in academia as researchers from better-funded research centers will have access to advanced AI tools and hence have an unfair advantage in publishing. Apart from ethical and pragmatic concerns, greater use of AI in academia has broader implications for scholarship in the future. With AI taking over mundane tasks, researchers, teachers, and publishers will have to redefine their role and responsibility. This can redefine what a 21st-century scholar is. For instance, researchers will have to learn new skills to communicate with AI systems, and teachers will have to redefine pedagogy to prepare students for a future with AI as a main participant in knowledge creation. Alternatively, there is a risk that over-reliance on AI will lead to a lowering of critical thinking and creativity, which are required for building knowledge and for handling complex problems in society.

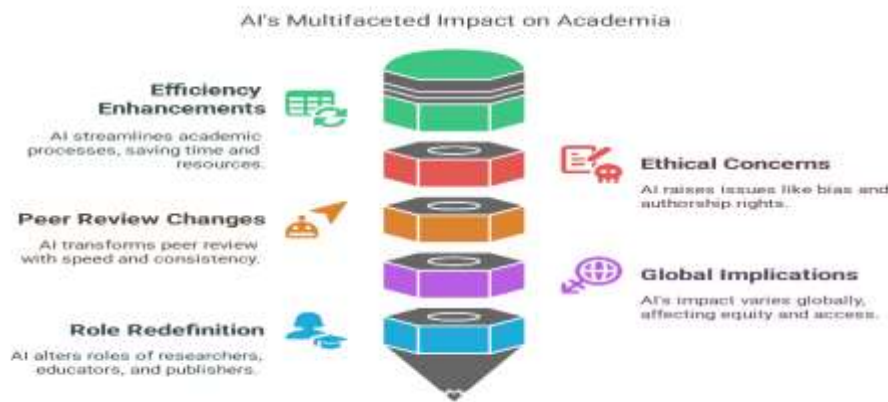


Figure (1) Demonstrates AI's Multifaceted Impact on Academia

The international reach of AI in academia cannot be overstated. While AI can narrow information access gaps, AI can be used to widen gaps. Researchers in low-income and middle-income countries can have restricted access to or resources for building sophisticated AI tools and therefore end up being disadvantaged in the global academic community. Western assumptions guiding AI design can lead to homogenizations of research topics and approaches and exclusion of alternative forms of knowledge and understanding. Counteracting such issues, a collective push for equity and inclusiveness in AI technologies and their design and use is needed.

Against this background, this paper endeavors to provide a balanced overview of AI risks and rewards in academia. By considering AI's ethical, practical, and international dimensions, we aim to contribute to a better-informed understanding of this controversial issue. Our research questions are based on the following:

- How is AI adoption going in scholarly practice, and what are the perceived benefits and issues?
- What are the moral consequences of using AI tools in publishing and research?
- In what ways does AI influence academic communications in terms of quality, credibility, and transparency?
- How does AI influence processes of peer review, and what risks and rewards are there?
- How can AI tools be used to enhance equality and exclusivity in scholarship?
- What are AI adoption's long-term impacts on researchers, educators, and publishers' responsibilities and roles?

In responding to these questions, we draw on a range of sources, from academic literature to insights of experts and case studies. We do not simply look to point to AI's potential to revolutionize but to carefully evaluate challenges as well. By doing so, we hope to provide information to guide policy and enable the academic community to steer through the challenging AI adoption process. Ultimately, AI technology acceptance in academic contexts will be a matter of our commitment to maximize rewards and avoid risks so that it can become an instrument for the expansion of knowledge, rather than letting it diminish the very essence of learning.

## THE ROLE OF AI IN SCHOLARLY PRACTICES: BENIFITS AND CHALLENGES

AI is a rapidly emerging phenomenon with opportunities and challenges for scholarly practice. One of the main benefits is automated handling of tedious tasks such as data collection, literature review, and reference management. Various tools, like GPT-4 and ChatGPT, can assist researchers in such activities as summarizing a significant amount of literature, identifying gaps in the research, and even writing segments of articles (Abdelwahab, 2024). Not only does this create time savings, but it also allows researchers to do higher-order thinking. For example, if you're citing sources from databases or publishers' websites, it is worth your time to try to make use of the AI-powered tools available that can greatly simplify managing citations by automatically populating bibliographies and formatting references in various citation styles, like EndNote or Zotero. Similarly AI-based platforms like Iris. and Semantic Scholar help researchers filter through the deluge of scholarly articles to identify relevant studies and extract key findings. They have also transformed the landscape of literature reviewing, as significantly more comprehensive and rigorous reviews are now being undertaken as a result of the efficiencies these tools enable. However, the reliance on an AI for these services raises a big question over the quality and originality of academic work. AI may also produce less thorough and nuanced content than what a human researcher might provide (Watson et al., 2025). A study by (Maphalala & Ajani, 2025) discovered that AI-

written articles were frequently coherent and put-together, but usually missed the ability to critically assess and apply context that researchers are able to provide. But all this raises the question of how closely AI can match the rigor of human scholarship. Further, over-dependency on AI may impair the critical thinking and analytical skills set in researchers. As AI advances, academic researchers must strike a middle road in their use of these new tools with the need to verify academic rigor. So, it instills not only technical requirements but also deep ethical and epistemological awareness of AI consequences on academia.

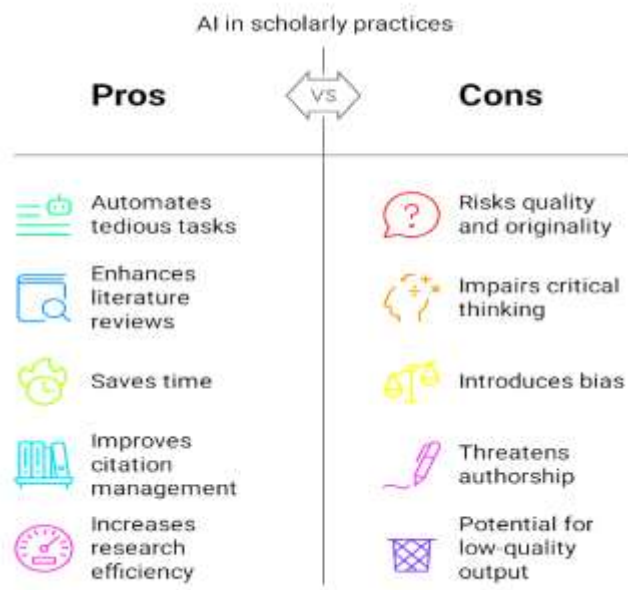


Figure (2) Demonstrates AI's Pros and Cons in Scholarly Practices

## THE ETHICS OF AI IN ACADEMIC RESEARCH AND PUBLISHING

The potential of AI raises numerous ethical and practical questions in the field of academic research and publishing. Perhaps the most concerning is bias in AI algorithms. AI systems learn from existing datasets, therefore, they can unintentionally replicate the bias that exists in that dataset (Rentier, 2024). An AI tool that scans job applications or grant proposals, for example, could privilege some demographics or areas of research over others, which would just embed existing power structures in academia.

One well-known instance is Amazon's AI hiring tool, which discriminated against female applicants because it was trained on ten years of resumes, most of which belonged to men (Dastin, 2022). Similarly, AI technologies applied to grant funding or peer review could disadvantage early-career researchers and researchers from underrepresented groups by introducing systemic bias into the evaluation of one's research. One final ethical problem is ownership and intellectual property. As AI systems become more advanced at producing essays, research papers, and other scholarly content, traditional concepts of authorship are at risk. For example, whether the developers of AI tools should be listed as co-authors or just the human researcher who is working with the AI should receive credit is a complex matter and multifaceted issue. The literature thus far suggests that AI, as much as it can be of tremendous help in writing research, does not qualify as an author. Instead, proper acknowledgment of the contribution made by AI is required, with the significance of transparency and ethics in using it (Moffatt & Hall, 2024). These questions matter in terms of career path, funding, and recognition for research contributions. A paper co-written by ChatGPT, for instance, became a controversial issue in 2023 for whether an AI should be credited as a co-author. Some even challenged whether the AI must be credited as a co-author, while others held that only humans can be authors. This kind of debate highlights the need for established guidelines and standards related to AI-generated output for academic publishing.

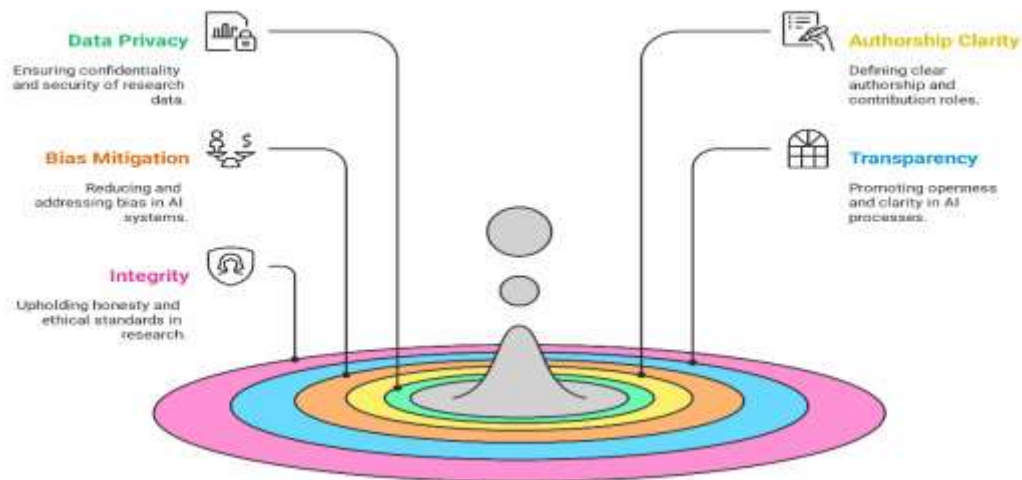


Figure (3) Illustrates Ethical Issues of AI in Academia

### AI AND SCHOLARLY RESEARCH: QUALITY, CREDIBILITY, AND ACCESSIBILITY

AI also enables the quality of academic writing to increase by making research more accurate, reliable, and accessible. For instance, AI-based tools have the capability to detect errors in manuscripts, thus ensuring more accuracy and reliance ((Kharipova et al., 2024). Some of the tools that apply the use of natural language processing to detect grammatical errors, correct sentence structures, and enhance the clarity of texts include Grammarly and ProWritingAid. Turnitin and iThenticate are also applications that use artificial intelligence to detect plagiarism instances and encourage original writing of academic papers.

AI can also enable the dissemination of research through the translation of academic literature into different languages so that it is readable by individuals globally. For instance, research papers have been translated into different languages through Google Translate and DeepL in order to enable easy reading and interaction with research conducted in English by non-native English speakers (Biond & Zoccai et al., 2025). This has the potential to democratize access to information in addition to enabling the academic community to be more inclusive (Guo & Zaini, 2024).

Nevertheless, the use of AI in academic communication also raises credibility issues. For one, the large number of written texts produced by AI could lead to an increase in poor-quality or fabricated research. It is well noted that academic content produced by AI consistently could not be differentiated from those written by human beings, and that this is causing concern that research could now be fabricated using the AI technology.

To address these issues, certain explicit rules and parameters need to be constructed for the use of AI in academic communication. They include the development of tools and mechanisms for verification of the validity and accuracy of AI output and ensuring the transparency and accountability of the AI algorithms (Yaseen et al., 2024 ).

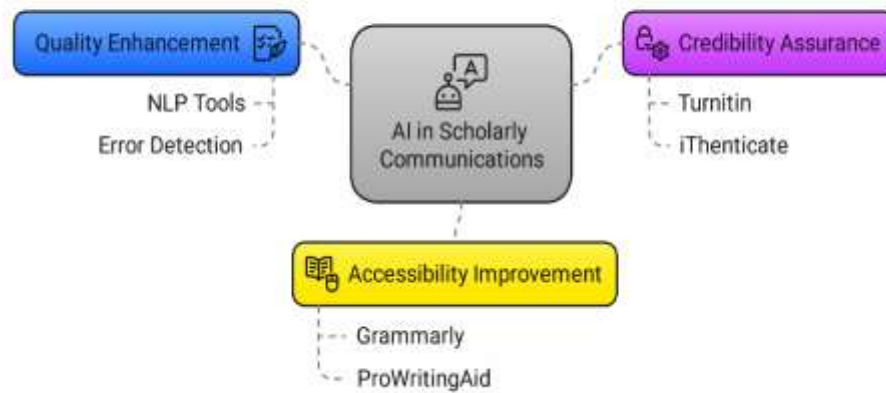


Figure (4) Depicts Enhancement of Scholarly Research with AI

#### EMBARKING RISKS AND REWARDS OF AI IN THE PEER REVIEW PROCESS

AI supports the peer review process, which is regarded as a crucial phase in academic publishing and is based on soundness and integrity. For example, AI can screen submissions for plagiarism, statistical errors, and compliance with journal requirements (Hosseini & Resnik, 2024). This will help reduce the workload on humans as reviewers and ensure that published research meets a higher standard. For example, StatReviewer which is AI-based tool that reviews statistical analyses in a research paper, highlighting errors and discrepancies that may have escaped human scrutiny (Kharipova et al., 2024). The same applies to ScholarOne and Editorial Manager, which also use AI in the peer review process to more suitably select appropriate reviewers. However, this does not come without a bit of trouble. Kővári (2025) suggests an AI could be programmed to reject anything that looks like some other paper, regardless of its context or original creativity. And just as peer review can be biased toward researchers at better funded-institutions, AI in peer review could exacerbate those power imbalances because researchers at more advanced institutions will tend to have access to better tools and resources. It is crucial to develop AI tools that are transparent, accountable, and inclusive to mitigate these risks. This means involving diverse stakeholders in the design and application of AI tools and introducing enforceable policies and guidelines regarding AI use in peer review (Kővári, 2025).



Figure (5) Demonstrates Risks and Rewards of AI in Peer Review

#### FRAMEWORK FOR AI CONTENT UTILIZATION IN ACADEMIA

A key challenge regarding the increasing usage of AI in scholarly research is to secure fairness and exclusivity. Because AI systems are often trained on datasets, these datasets can reflect society and are subject to the same biases and inequalities that occur in the real world leading to biased outcomes as well. A job application screening tool, for instance, can have bias towards some demographics or certain institutes and reproduce existing inequalities. Therefore, to combat such challenges, we must harness transparent, responsible, and fair AI systems. This means extending the datasets that AI models are trained on and promoting engagement of stakeholders throughout the whole AI tool creation and use channel. There must also be policies in place that are actionable and appropriate governing the use of AI in academia so as to prevent unintentional discrimination and exclusion. IBM has created a set of algorithms and metrics in a balance development environment intended for use in detecting and mitigating bias in AI systems, which is named the AI Fairness 360 toolkit (Bellamy et al., 2019). Likewise, the Fairness, Accountability, and Transparency in Machine Learning (FAT/ML) was developed to bring awareness to inclusivity and fairness in AI-enabled research, and some practices and principles have emerged from the FAT/ML community (FAT/ML, 2023).



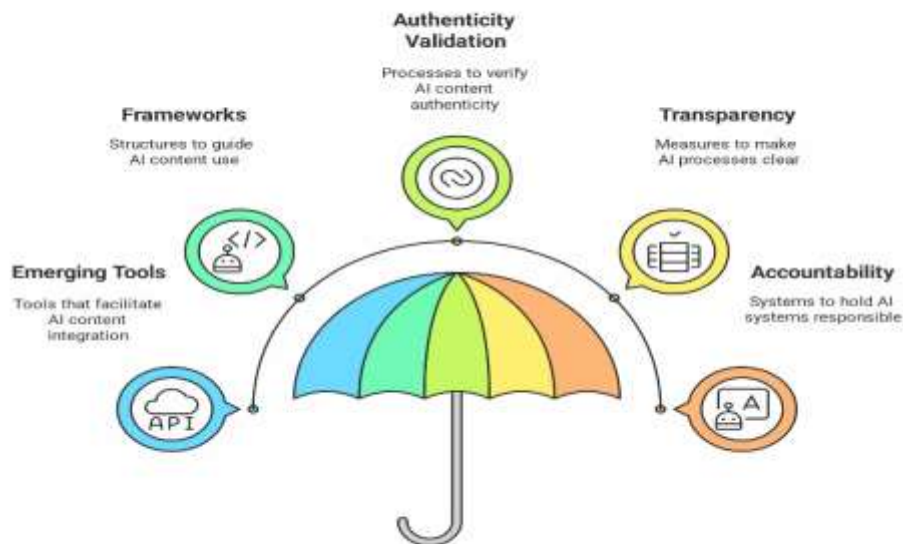


Figure (6) Demonstrates Framework for AI Content Utilization in Academia

## THE LONG-TERM IMPLICATIONS OF AI FOR RESEARCHERS, EDUCATORS, AND PUBLISHERS

The application of AI in academia has significant long-term implications for researchers, educators, and publishers. As AI performs routine work daily, scholars' work and demands will have a tendency to shift. For example, scholars will need to develop new abilities in order to cooperate more effectively with AI instruments. This includes mastering prompt engineering to optimize AI outputs (Fariborzi & Steel, 2024). Also, instructors will need to redesign their teaching practices to prepare learners for an age where AI will dominate the process of generating knowledge. At the same time, there is a risk that excessive reliance on AI will devalue critical thinking and creativity, the same skills required for advancing knowledge and solving intricate societal problems. In order to eliminate this risk, it is possible to strike a balance between availing oneself of the advantages of AI and upholding intellectual stringency.

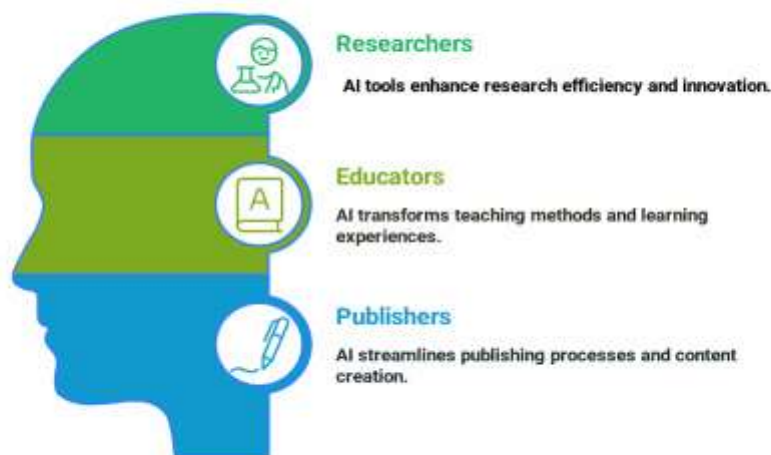


Figure (7) Illustrates the Impact of AI on Academic Sectors

## GLOBAL PERSPECTIVES ON AI IN SCHOLARSHIP

The effect of AI on the educational sector is not evenly distributed in the world. AI can very well be an equalizer of knowledge, but it may even increase the difference between haves and have-nots. It is noteworthy that low- and middle-income countries' researchers may not even have such tools available to them, nor the skills to design them or keep themselves informed about the fast-evolving trends in AI, thereby creating a digital divide (Akter, 2024). These concerns should not be overlooked, as they highlight the importance of multiple perspectives within the discipline and the need for balancing power relations in AI development and deployment. This can be achieved through inclusive and equitable AI technology development and deployment. Such support includes the development of AI instruments that respond to the specific requirements and conditions of researchers in low- and middle-income countries as well as collaboration and exchange of information between nations.

## Conclusion

The use of AI in academia is beneficial and problematic. AI can increase efficiency, access, and innovation in research and publishing but poses significant new ethical and international questions. Policies and guiding principles need to take a subtle balance between the potential of AI and risk factors through an ecosystem of explicitly defined standards in the spirit of fairness, inclusivity, and intra- and inter-disciplinary collaboration. It would enable the academic community to harness AI as a force for well-being and development.

## References

- Abdelwahab, M. (2024). Artificial Intelligence Common Good in Research and Academics. *Scholarship without Borders Journal*, 3(1). <https://doi.org/10.57229/2834-2267.1058>
- Akter, S. (2024). Global Perspectives on the Social Impacts of Artificial Intelligence: A Comparative Review of Regional Inequalities and Cultural Contexts. *Deleted Journal*, 5(1), 400–423. <https://doi.org/10.60087/jaigs.v5i1.215>
- Ali, Sk. M., Ghose, A., Saurav, S., & Deshmukh, S. K. (2024). Creativity and Innovation in the Age of Artificial Intelligence: A Copyright Dilemma. *Padjadjaran: Jurnal Ilmu Hukum (Journal of Law)*, 11(2), 164–184. <https://doi.org/10.22304/pjih.v11n2.a1>
- Aninze, A. (2024). Artificial Intelligence Life Cycle: The Detection and Mitigation of Bias. *Proceedings of the International Conference on AI Research.*, 4(1), 40–49. <https://doi.org/10.34190/icaire.4.1.3131>
- Batista, J., Mesquita, A., & Carnaz, G. (2024). Generative AI and Higher Education: Trends, Challenges, and Future Directions from a Systematic Literature Review. *Information*, 15(11), 676. <https://doi.org/10.3390/info15110676>
- Bellamy, R. K. E., et al. (2019). *AI Fairness 360: An extensible toolkit for detecting and mitigating algorithmic bias*. IBM Journal of Research and Development.
- Biondi, Zoccai. Et al. (2025). Artificial Intelligence Tools for Scientific Writing: The Good, The Bad and The Ugly. <https://doi.org/10.62684/bxvs8359>
- Busch, D. (2024). *AI translation and intercultural communication: New questions for a new field of research*. <https://doi.org/10.31235/osf.io/r3zdx>
- Dastin, J. (2022). *Amazon scraps secret AI recruiting tool that showed bias against women*. In; Ethics of data and analysis. Taylor and Francis Group. ISBN 9781003278290
- Fariborzi, H., & Steel, P. (2024). *New ChatGPT and AI Tools for Academic Research and Publishing*. Instats.
- Guo, H. Y., & Zaini, S. H. (2024). Artificial Intelligence in Academic Writing: A Literature Review. *Asian Pendidikan*, 4, 46–55. <https://doi.org/10.53797/aspen.v4i2.6.2024>



Hosseini, M., & Resnik, D. B. (2024). *Guidance needed for using artificial intelligence to screen journal submissions for misconduct*. <https://doi.org/10.1177/17470161241254052>

Kharipova, R., Khaydarov, I., Akramova, S., Lutfullaeva, D., Saidov, S., Erkinov, A., Azizkhonova, S., & Erkinova, N. (2024). The Role of Artificial Intelligence Technologies in Evaluating the Veracity of Scientific Research. *Journal of Internet Services and Information Security*, 14(4), 554–568. <https://doi.org/10.58346/jisis.2024.i4.035>

Kővári, A. (2025). Ethical use of ChatGPT in education—Best practices to combat AI-induced plagiarism. *Frontiers in Education*, 9. <https://doi.org/10.3389/educ.2024.1465703>

Maphalala, M. C., & Ajani, O. A. (2025). Leveraging artificial intelligence as a learning tool in higher education. *Interdisciplinary Journal of Education Research*, 7(1), a01. <https://doi.org/10.38140/ijer-2025.vol7.1.01>

Moffatt, B., & Hall, A. (2024). Is AI my co-author? The ethics of using artificial intelligence in scientific publishing. *Accountability in Research*, 1–17. <https://doi.org/10.1080/08989621.2024.2386285>

Rentier, E. S. (2024). To use or not to use: exploring the ethical implications of using generative AI in academic writing. *AI and Ethics*. <https://doi.org/10.1007/s43681-024-00649-6>

Salman, H., Ahmad, M. A., Ibrahim, R., & Mahmood, J. (2025). Systematic analysis of generative AI tools integration in academic research and peer review. *Online Journal of Communication and Media Technologies*, 15(1), e202502. <https://doi.org/10.30935/ojcm/15832>

Watson, S., Brezovec, E., & Romic, J. (2025). The role of generative AI in academic and scientific authorship: an autopoietic perspective. *Ai & Society*. <https://doi.org/10.1007/s00146-024-02174-w>

Yaseen, S., Kohan, N., & Ayub, A. (2024). Research Integrity Enhancement: Integration of Post-Publication Peer Review to Alleviate Artificial Intelligence-Generated Research Misconduct. *Annals of King Edward Medical University*. <https://doi.org/10.21649/akemu.v30i1.5692>