

THE POTENTIAL AND ETHICAL ISSUES OF ARTIFICIAL INTELLIGENCE IN IMPROVING ACADEMIC WRITING

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ABSTRACT

Artificial intelligence (AI) has brought about transformative opportunities and has attracted the attention of many international organisations to the intent that UNESCO has held two international conferences on it. including (i) International Conference on Artificial Intelligence and Education in 2019 in Beijing, focusing on leveraging AI to advance education and sustainable development. This conference resulted in the Beijing Consensus on Artificial Intelligence and Education, outlining strategies for AI integration in educational policies and systems (ii) Forum on AI and Education 2022, emphasising the use of AI to empower teachers and transform teaching practices globally. Meanwhile, there was a regional forum led by UNESCO which examined AI in the context of ethics and societal impact, contributing to frameworks like the Recommendation on the Ethics of Artificial Intelligence in 2021. This paper focused on ethical challenges in academic writing and examines the growing significance of AI-powered tools for improving academic writing with an emphasis on how these innovations expedite research procedures raise writing standards and increase output. Artificial intelligence (AI) tools that save time and effort during drafting and editing include content generators citation managers and grammar checkers. These tools are very helpful for researchers and writers. The preservation of human creativity authorship plagiarism and intellectual integrity are some of the issues brought up by this growing reliance on AI. A number of ethical issues are looked at including who owns content created by AI the possibility of losing one's ability to think critically and the possibility of idea misattribution. Though AI has the potential to completely transform academic writing the paper contends that in order to ensure that these technologies are used responsibly and enhance rather than replace human intellect and creativity a careful balance must be struck. There are suggestions given for preserving academic integrity and encouraging moral application of AI in research projects.

Keywords: Artificial Intelligence (AI), Academic Writing, International Conferences



1. INTRODUCTION

Technologies related to artificial intelligence (AI) are evolving quickly which has significant implications for several sectors including education and research [Farahani & Ghasmi \(2024\)](#). These days AI tools are widely used in academic writing to assist with a range of tasks including grammar and plagiarism checking citation management and content creation [Zhang & Lu \(2021\)](#). Because these innovations speed up the research process enhance writing quality and increase efficiency academics can focus more on idea development and analysis [Farahani & Ghasmi \(2024\)](#). Nonetheless the growing application of AI in scholarly writing also brings

up important questions about the ethical implications of content produced by AI and the boundaries between human and machine creativity [Zhang & Lu \(2021\)](#). There is no denying that AI offers academic writers new opportunities. Text drafting can be aided by programmes like Grammarly, Turnitin and ChatGPT from OpenAI which can also detect grammatical mistakes and provide recommendations for enhancement [Zhang & Lu \(2021\)](#).

These tools allow authors to create polished cohesive work more rapidly which is especially useful in settings with limited time. According to [Zhang & Lu \(2021\)](#), AI can also assist non-native speakers in overcoming language barriers promoting inclusivity in academic publishing. Notwithstanding these benefits there are a number of ethical issues with the widespread use of AI in academic writing. The potential for intellectual dishonesty a reduction in originality and the possible confusion of authorship and attribution when content is produced by AI are particularly relevant concerns. Further ethical concerns are raised by the possibility that these automated technologies unintentionally reinforce biases found in the training data [Wang et al. \(2024\)](#).

Additionally, researchers and students might grow unduly reliant on AI tools for content production which could impair their ability to think critically and write [Almufarreh & Arshad \(2023\)](#). This essays goal is to investigate the possibilities and moral dilemmas related to AIs potential to enhance academic writing. This paper examines the benefits and possible drawbacks of artificial intelligence in an effort to present a fair assessment of its incorporation in higher education. Additionally, it stresses how crucial it is to set up best practices and ethical standards to make sure AI respects human creativity and academic integrity rather than undermining it [Ahmad et al. \(2024\)](#).

2. OPPORTUNITIES PROVIDED BY AI IN ACADEMIC WRITING

AI has received praise for its ability to make academic writing more efficient. [Ahmad et al. \(2024\)](#) claim that by automating time-consuming processes like formatting citation management and proofreading AI tools have increased academic writing productivity. Researchers can now devote more of their time to idea development and in-depth analysis thanks to this automation. instruments such as Turnitin and Grammarly as mentioned by Chin et al. provide prompt feedback on language grammar and plagiarism in 2022 assisting writers in generating more polished work. Similarly, [Ahmad et al. \(2024\)](#) contend that artificial intelligence (AI) makes research processes faster and more accurate.

They cite the example of AI-powered databases and research assistants that can extract pertinent information from large amounts of data and help academics with literature reviews and data analysis. Another widely established advantage of AI is its effect on inclusivity in academic writing. The use of AI tools to correct grammatical errors and provide stylistic recommendations is highlighted by [Murtaza et al. \(2022\)](#) as a means of assisting non-native speakers. With the use of these resources academics who are not native English speakers can overcome language barriers and produce excellent work that advances the fields scholarly conversation and that, AIs capacity to identify subtle inaccuracies improves academic writings coherence and clarity opening up complex research to a wider readership.

3. ETHICAL CONSIDERATIONS IN AI-ASSISTED ACADEMIC WRITING

Although artificial intelligence (AI) has many advantages, but there are growing ethical concerns about its application. Plagiarism and intellectual dishonesty are two of the most important problems. [Jaboob et al. \(2024\)](#) contended that concerns regarding the originality of academic work are raised by the ease with which AI-generated content can be produced. It could be tempting for academics and researchers to rely too much on AI tools for content creation which obfuscates the distinction between true authorship and machine assistance. The study further cautioned that this over-reliance could contribute to academic dishonesty and a loss of intellectual rigour by undermining the development of critical thinking and writing abilities. The question of authorship and attribution is a significant additional worry. [Singh & Ram \(2024\)](#) recommended against replacing the fundamental intellectual contribution of human writers with AI tools despite their benefits.

The ownership of ideas is thus called into question by the concept of machine authorship especially in situations where AI-generated content is identical to text that was written by humans. This creates ethical and legal questions about copyright because AI tools are not protected by intellectual property rights [Guo et al. \(2021\)](#). Furthermore, issues concerning the biases built into AI algorithms have been brought up. The study further established that in scholarly writing pertaining to the social sciences and humanities AI systems trained on skewed data have the potential to reinforce and perpetuate preexisting stereotypes. In domains where impartial nuanced analysis is vital the ethical ramifications of biased AI outputs are crucial. In an effort to reduce the possibility of bias being perpetuated in academic work [Guo et al. \(2021\)](#). advocate for increased transparency in the creation and application of AI writing tools.

4. BALANCING AI USE AND HUMAN CREATIVITY

An increasing amount of research highlights the significance of striking a balance between AI support and human creativity and supervision. [Tahiru \(2021\)](#) argue that although AI tools can improve writing they should not take away from the distinctive creative contributions made by human writers. They support the responsible use of AI tools in writing. They contend that the application of AI in academic writing should enhance critical thinking and intellectual engagement rather than replace it. The study established principles for the moral application of AI highlighting the necessity of openness in AI-assisted writing and accurate idea attribution.

5. ACADEMIC INTEGRITY AND INSTITUTIONAL GUIDELINES

Institutions must create precise policies regarding the use of AI in scholarly writing. Universities and other academic institutions ought to establish policies outlining the moral application of AI tools particularly in student projects and research according to [Zhang & Aslan \(2021\)](#), plagiarism authorship and the tolerance for AI-generated content in academic writing should all be covered by these guidelines. In order to help students, understand the ethical boundaries of AI use and to encourage them to develop their writing skills independently the study

highlights the significance of fostering academic integrity through education and training.

6. ACCEPTABLE PERCENTAGE OF AI IN ACADEMIC WRITING

There has never been a consensus on the acceptable percentage of AI use in academic writing [Holmes & Tuomi \(2022\)](#). However, the academic community generally expect AI tools to complement human intelligence rather than replace it. Examples of acceptable AI applications include editing and proofreading, Grammarly and Hemingway are popular AI tools for checking grammar punctuation and style. This type of AI usage is widely accepted and even encouraged in academic writing [Holmes & Tuomi \(2022\)](#). Citation management which automatically organising references and citations in academic writing through the use of tools such as EndNote or Zotero is also encouraged.

More also, to ensure originality and detect plagiarism, plagiarism checking that enhances academic integrity regularly uses AI tools such as Turnitin. Conversely AI systems that generate text and suggest content including ChatGPT raise more ethical questions when used for content generation. If AI is used to write substantial portions of a work it could blur the line between authorship and originality. Thus, a need to require AI-generated text to be appropriately labeled, it is strongly advised that AI be used sparingly and subject to suitable human oversight. Thus the final product of academic writings must primarily be the work of human authors [Bahari et al. \(2024\)](#).

Additionally, [Ojokheta & Omokhabi \(2023\)](#) pointed out that Artificial intelligence (AI), along with Robotics, Web3, Blockchain, Cloud computing, Quantum computing, Internet of Things (IoT), 3D Printing, Virtual Reality (VR), Augmented Reality, and Biotechnology are some of the most advanced technological tools of the fourth industrial revolution (4IR) and is widely used in human activities. AI is revolutionising, re-engineering and transforming all human activities through automation, including efficient production of goods and services, organizational activities, decision-making, productivity, and technical and professional competence and knowledge. AI seems to be currently the most educational technology.

7. INSTITUTIONAL GUIDELINES ON AI ETHICAL

When using tools that provide more than just basic editing assistance, some institutions mandate that any AI assistance may have to be declared in the ethical section of the manuscript depending on the institutions requirement. Such that is not assumed that the human author is responsible for all concepts, reasoning, analysis and original contributions. Content produced by AI that closely resembles or replicates preexisting texts without giving due credit may give rise to plagiarism concerns. Any content produced by AI should be properly cited to maintain academic integrity and avoid ethical violations [Alasadi & Baiz \(2023\)](#).

8. CASE STUDIES OF ETHICAL PRACTICES AND POLICIES FOR THE USE OF AI IN ACADEMIC WRITING IN ACADEMIC INSTITUTIONS

Many universities around the world have begun establishing ethical standards and guidelines in response to the use of AI in academic writing. These institutions

understand both the ethical conundrums and potential benefits of AI technologies. Below are case studies of a few prestigious universities.

9. STANFORD UNIVERSITY (USA): USING AI ETHICALLY IN WRITING AND RESEARCH

Stanford has been at the forefront of AI ethics with the establishment of the Stanford Institute for Human-Centered Artificial Intelligence (HAI). Clearly defined rules set by the university govern academic writing and AI research. Although AI tools can support research the guidelines state that faculty and students must make sure that sufficient human oversight is in place. Stanford advocates for the open disclosure of AI writing assistance and urges students to be aware of the moral implications of doing so.

10. STANFORD UNIVERSITY (USA) PRINCIPAL ETHICAL MEASURES

Openness and disclosure requirements for AI technologies used in academic publications. making materials and holding workshops aimed at teaching students and staff about the moral use of AI in research and writing, the creation of specific ethical standards for handling AI-generated content is necessary to preserve academic integrity in the said University.

11. CAMBRIDGE UNIVERSITY: ARTIFICIAL INTELLIGENCE AND INTELLECTUAL

Given the increasing impact of AI on academic writing the University of Cambridge has also created guidelines as part of its Ethics of AI Research initiative. Cambridge highlights that maintaining intellectual integrity is crucial even though AI can help with language and structure improvement. While students are encouraged to use AI tools for proofreading and citation management tasks they must disclose when using them to generate content [Miller & Turek \(2021\)](#). For concepts argumentation and analysis, the organization requires that a human remain the works primary author.

12. CRUCIAL ETHICAL ACTIONS UNIVERSITY OF CAMBRIDGE UK

Severe rules that forbid using AI technologies to generate long texts or new ideas without human input. Student participation in workshops on academic integrity and AI use was mandatory. the application of clear penalties for misuse of AI such as plagiarism or unattributed AI-generated content.

13. PREVENTION OF PLAGIARISM AND ARTIFICIAL INTELLIGENCE AT THE AUSTRALIAN NATIONAL UNIVERSITY (ANU)

To combat AI-generated content and avoid plagiarism the university recently updated its academic misconduct policy. Students are required to indicate in their submissions whether and to what extent artificial intelligence (AI) was used in compliance with ANUs policies despite the fact that the university actively promotes the responsible use of AI tools to enhance academic work and stresses the

importance of originality [Nguyen & Lee \(2021\)](#). The institution also uses plagiarism detection tools like Turnitin to track the originality percentage of academic writings in order to detect and identify any unattributed AI-generated content

14. AUSTRALIAN NATIONAL UNIVERSITY (ANU) MAIN ETHICAL POLICIES

Regulations requiring that all academic work submitted disclose the use of AI. guidelines emphasizing that AI-generated content should not take the place of students' original intellectual contributions and that proper attribution is required. enhanced techniques for identifying plagiarism that consider AI-generated text.

15. ETHICS IN AI-ASSISTED WRITING, UNIVERSITY OF HONG KONG (HKU)

The University of Hong Kong (HKU) developed a comprehensive program on AI and Ethics in Education to give students the tools they need to use AI tools responsibly in their academic work. AI tools can enhance writing processes but they shouldn't be used to generate original theories analyses or ideas according to HKUs guidelines, the university also requires students to finish courses on intellectual property rights ethical writing practices and the use of AI.

16. HKUS (THE UNIVERSITY OF HONG KONG) PRINCIPAL ETHICAL MEASURES

The use of AI in academic writing requires ethics education for students. rules that clearly specify when using AI tools is permitted (for instance when managing citations and proofreading) and when using AI for critical cognitive tasks is prohibited. Techniques to ensure transparency in academic research and keep an eye on the use of AI.

17. AI AND RESEARCH ETHICS AT MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT USA)

Leading the debate on the connection between academic ethics and artificial intelligence is the MIT Schwarzman College of Computing, transparency in the use of AI tools is particularly crucial for academic writing and research. The group has developed a framework that gives researchers and students permission to use AI for planning and revising research but prohibits using AI to generate original concepts or analyses without properly citing sources. According to MIT's policies AI should complement human creativity rather than replace it.

18. MITS (MASSACHUSETT INSTITUTE OF TECHNOLOGY) PRINCIPAL ETHICAL MEASURES

AI-generated content must be identified and appropriately attributed in academic publications. ethical standards that distinguish between unethical content generated by AI in research and content that is acceptable with AI editing assistance. Resources and programs to educate scholars and students about the responsibilities and limitations associated with the application of artificial intelligence in higher education.

19. CONCLUSION

AI has a broad role in improving academic writing but it also raises important ethical issues and presents a number of opportunities. Artificial intelligence (AI) tools can enhance writing quality expedite research procedures and make content more accessible to non-native speakers. Researchers can concentrate more on idea development and critical analysis thanks to these innovations which also increase efficiency and support. Yet there are also significant worries about authorship plagiarism intellectual integrity and the decline of human creativity and critical thinking that come with the growing use of AI in academic writing. Its critical to find a balance between using AI in academic settings and upholding the fundamentals of human authorship and academic integrity as these tools become more commonplace. The intellectual contributions of human writers should be complemented by AI not replaced by it. It is imperative to establish transparent guidelines appropriate disclosure practices and clear guidelines for the responsible and ethical use of AI.

AI technologies require careful consideration from academic institutions researchers and students in order to ensure that their use upholds ethical standards and improves the caliber of scholarly work as a whole. The integration of AI in academic writing must be guided by a careful assessment of its ethical implications as well as its potential benefits. In the end AI offers both opportunities and challenges. The literature that has been written about AI in academic writing thus far shows concern about the ethical issues it raises in addition to optimism about how it can improve efficiency inclusivity and quality. Though AI tools can make writing easier and lower the bar for non-native speakers concerns like authorship ambiguity plagiarism and the decline of critical thinking need to be closely monitored. Academic writing integrity must be maintained by striking a balance between human oversight and creativity and the application of AI. This is a consensus among scholars. To guarantee that artificial intelligence (AI) augments rather than diminishes the significance of human contribution in academia ethical frameworks and institutional guidelines must be instituted.

The use of AI should therefore be transparent and ethically guided in accordance with academic institution norms and it should supplement human input rather than replace it. As this is going on the aforementioned case studies demonstrate how numerous prestigious universities have started to address the moral application of AI in academic writing by developing explicit policies encouraging openness and supporting responsible AI use. These academic institutions ensure that AI is used to support academic standards rather than undermine them by striking a balance between the advantages of AI and the need to preserve human creativity and intellectual integrity.

20. RECOMMENDATIONS

Educational establishments ought to create detailed guidelines defining what constitutes appropriate AI usage in academic writing. These regulations should highlight the value of human authorship and intellectual integrity while outlining the acceptable uses of AI technologies for tasks like content creation citation management and proofreading. Along with clearly outlining how to disclose its use they should also discuss the ethical ramifications of AI-generated content. Encourage. Academic writers should be trained in the moral and responsible application of artificial intelligence (AI). To help users understand the potential and

constraints of AI tools and make sure they complement human creativity and critical thinking without sacrificing originality training programs workshops and seminars can be arranged. Writers should be open and honest about the use of AI tools when they generate content or provide substantial editing support. Maintaining the authenticity of academic work will be made easier with this practice which will promote trust and clarity about the proportion of human versus machine input for writing.

Artificial intelligence (AI) tools should support human thought processes rather than take them over. In academic writing authors should put their own critical thinking creativity and originality first. AI should be used as a supplemental tool to help with clarity grammar and organization. Academic institutions ought to encourage writing practices that improve students writing abilities and discourage relying too much on artificial intelligence. Institutions need to modify their plagiarism guidelines to take into account the new challenges posed by content produced by artificial intelligence. When AI is involved clear guidelines should be established to define what is and is not intellectual dishonesty and to appropriately attribute any ideas or content that AI suggests or generates. To gain a better understanding of AIs effects on academic integrity writing quality and critical thinking it is important to support ongoing research and monitoring on the use of AI in academic writing. To stay abreast of artificial intelligence (AI) developments and guarantee the responsible integration of AI into scholarly practices, institutions can work with technology experts and ethics committees to work on the acceptable modalities.

CONFLICT OF INTERESTS

None.

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