

# Plagiarism and Artificial Intelligence: Balancing Innovation with Academic Integrity

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## Introduction

Currently, the intersection of artificial intelligence (AI) and plagiarism has become a pressing issue in academia, journalism, and creative fields. This convergence raises important questions about authorship, originality, and the ethical considerations surrounding the use of technology for content generation. The rapid evolution of AI tools invites profound reflection on how these technologies can affect integrity and creativity in the production of academic and creative works. Some individuals argue that using AI is advantageous, particularly for non-native speakers, while others contend that it may lead to scientific misconduct. Therefore, striking the right balance between innovation and upholding academic integrity is essential at this time.

## Understanding Plagiarism

Plagiarism is defined as the unauthorized use of someone else's work, ideas, or expressions without giving appropriate credit, thereby presenting them as one's own.<sup>1</sup> The World Association of Medical Editors (WAME) defines plagiarism as "the use of others' published and unpublished ideas or words (or other intellectual property) without attribution or permission, and presenting them as new and original rather than derived from an existing source."

The Committee on Publication Ethics (COPE) has categorized various levels of plagiarism, which may occur in several forms, including direct plagiarism, mosaic plagiarism, self-plagiarism, and improper paraphrasing. Such actions can result in consequences ranging from manuscript rejection to the retraction of published works in severe cases.<sup>2</sup>

Various tools have been developed to address the issue of plagiarism, which poses significant challenges to academic integrity and the originality of scholarly work. Among these tools, software programs such as iThenticate and Turnitin have gained prominence, becoming essential resources for educational institutions and academic journals alike.

The emergence of AI-generated content complicates our definition of plagiarism, challenging traditional notions of originality and ownership. As AI tools become more sophisticated, the line between original creation and the use of technology for writing assistance becomes increasingly blurred.

## The Impact of AI on Content Creation

Artificial intelligence technologies have profoundly transformed how content is created. Tools such as AI chatbots and automatic text generators have facilitated the generation of ideas and the drafting of complete texts. These tools help in improving grammatical accuracy, coherence, and writing styles. This accessibility has led many to rely on these technologies not just as assistants but as primary sources

of content. However, this dependence can obscure the line between authentic creation and simple access to preexisting formulations. Educational institutions must clearly define how to use these tools ethically so that they do not become pathways to unintentional or intentional plagiarism.

## Navigating Plagiarism in the Age of AI

One key criterion for authorship is accountability for every aspect of the work. Therefore, chatbots cannot be listed as authors since they cannot be held responsible for the accuracy, integrity, and originality of the work.<sup>3</sup> As we navigate the complexities of plagiarism related to AI, it is essential to strike a balance between embracing technological advancements and upholding principles of intellectual integrity. Content generation should integrate technology while honoring individual creativity and effort.

It is crucial to cultivate a culture that values original thought and creativity in both academic and creative endeavors while recognizing the potential benefits of AI as a tool for inspiration and enhancement. For instance, peer review processes and rigorous evaluations can help validate the originality and quality of work produced with AI assistance.

## Strategies for Avoiding Plagiarism While Using AI

To use AI responsibly, it is crucial to approach these tools as sources of inspiration and assistance rather than presenting AI-generated texts as original creations. Education serves as the foundation for improving research quality and should include training on how to ethically leverage AI tools.

Many scientific journals have reached a general agreement on the importance of reporting the use of generative artificial intelligence. Consequently, many have begun implementing guidelines to enhance transparency in the use and reporting of this technology(4). The International Journal Committee of Medical Editors recommends recognizing and acknowledging the contribution of AI, including full citation.<sup>2</sup> The GAIT (Generative AI Transparency) 2024 guidelines, which are based on a consensus about reporting the use of generative artificial intelligence(GAI) in scientific writing and involve 124 surgeons from 46 countries, state the following: 1) The use of GAI should be documented in a GAIT statement, specifying the model and its version; 2) The application of GAI should be aligned with CRediT criteria; 3) Specific prompts used must be included in a supplement; 4) Authors should maintain final responsibility for their work.<sup>5</sup>

Implementing plagiarism detection tools capable of identifying AI-generated content can also be beneficial, allowing educators and creators to recognize and appropriately address any ethical violations in academic practice.

## Conclusion

As technology advances, it is essential to cultivate a culture of integrity and transparency to uphold ethical responsibility in academia. By recognizing the power of AI tools and their potential to enrich the creative process, we must be proactive in establishing frameworks that guide their responsible use. Institutions, educators, and content creators share the responsibility to ensure that technological innovation does not undermine the principles of authorship and originality in the works they present.

The relationship between AI and plagiarism is complex and evolving; careful attention and ongoing education are vital to address the challenges it poses. Creating an academic future where AI and integrity coexist harmoniously will depend on the collective efforts of all involved, ensuring that technological advancement does not overshadow respect for human creativity and the value of ideas.

Furthermore, institutions and researchers must establish clear guidelines for the ethical and effective use of AI, including the proper citation of any contributions made by technology. For instance, when using an AI text generator to structure ideas, we should emphasize the importance of attributing content that is not exclusively based on the author's personal analysis or experience. Therefore, researchers must be transparent about their use of AI in their manuscripts, and journals should offer clear guidelines on what is acceptable to maintain the integrity of the study.

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