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Generative Artificial Intelligence and Academic Research Integrity: Ethical Challenges, Policy Responses, and Responsible Adoption

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ABSTRACT

GenAI is changing the way of research and higher education work. Tools like ChatGPT helps in writing, summarising and exploring new ideas faster and more accessible. These tools especially helps students and researchers who face problems in language or workload .At the same time, these AI tools raise important ethical questions about honesty and responsibility in research. Issues like plagiarism, made-up references, ghostwriting, and relying too heavily on AI reveal the risk of losing originality and accountability in academic work. This paper brings together insights from recent studies, student experiences, and institutional policies to show both sides of GenAI—its promise to support learning and creativity, and its potential to weaken research integrity if used carelessly. It also looks at how universities, journals, and organizations are beginning to respond, while pointing out the ethical dilemmas that remain unsolved—particularly the fact that AI itself cannot take responsibility for its outputs. The study argues that academic integrity frameworks need to adapt to this new reality, so that AI can be used responsibly as a tool for innovation without weakening the trust on which scholarship depends.

Keywords: - ChatGPT

1. INTRODUCTION

Generative Artificial Intelligence has emerged as a transformative technology in research and higher education. Tools such as ChatGPT, Claude, Grok and other large language models have become widespread. They are now being used by students and researchers for many purposes such as summarising articles, helping with writing, analysing data, and even coming up with new ideas and completely changed the way students learn, create, and interact with academic content. These tools helps in saving time and make learning easier, and can improve creativity. But also raise concerns about academic research integrity.

Issues like plagiarism, fake references, academic ambiguity and misusing of AI outcomes can goes against honesty and originality in research. Vasconcelos(2025) and Andersen (2025). The growth of GenAI is not only about technological understanding but also thinks about ethical issues and institutional impact. This review looks at recent studies to explain both advantages and challenges of GenAI and also considering policies and possible future steps.

2. LITERATURE REVIEW

Opportunities and Benefits

Not all of the changes brought about by generative artificial intelligence have been detrimental to research and higher education. Numerous studies demonstrate the potential benefits of adopting these tools, especially in terms of simplifying academic writing. Vasconcelos (2025) and Andersen (2025), for instance, point out that instructors whose first language is not English would find AI writing assistance to be quite helpful. AI help enables these researchers to voice their thoughts with impact and confidence, despite the difficulties they frequently encounter when attempting to publish in international publications. Generative AI may further level the playing field and encourage a

wider range of viewpoints in academia. Another recurrent issue in the literature is efficiency. AI solutions can relieve some of the time-consuming processes associated with drafting, summarising, and maintaining vast amounts of information. By doing this, they free up researchers to concentrate more on the fundamental scholarly activities of interpretation, analysis, and creativity. This idea is further supported by student viewpoints. According to a study on Students' Voices on Generative AI (2023), students frequently see AI as a collaborator in helping them refine their ideas and enhance the overall organisation of their writing. Students reported utilising AI to improve arguments or make sense of ideas they had trouble expressing at first, rather than completely replacing their own work. AI can help balance the increasing demands on academics at the institutional level, according to the literature. As per the publication Generative AI in Higher Education: Balancing Innovation and Integrity (2023), AI has the potential to decrease burden, foster cooperation, and enhance output quality when applied appropriately. As a result, technology can help with structural issues in higher education like stress and unequal access to resources in addition to increasing productivity.

RISKS AND THREATS TO INTEGRITY

A substantial amount of research cautions against depending too much on generative AI in spite of these benefits. One of the greatest dangers is the spread of false or misleading information. Jian (2025) provides examples of how AI tools can occasionally produce citations or references that aren't there. Although it can seem like a technical mistake, this puts academic credibility in grave danger. When they appear in published work, inaccurate citations damage the reputation of the individual researcher as well as the

legitimacy of scholarship in general. Over-reliance and plagiarism are other persistent issues. Students may be tempted to pass off AI-generated material as their own, avoiding the process of creative thought, according to the paper ChatGPT and the Rise of Generative AI: Threat to Academic Integrity? (2023). According to research from Impact of Generative AI in Academic Integrity and Learning Outcomes (2024), this dependence may hinder the growth of critical thinking abilities. Overuse of AI by students can result in faster assignment completion but less in-depth engagement with the subject matter, which will lower long-term learning outcomes. The gravity of these hazards is further demonstrated by real-world situations. According to Wired (2023), articles created by AI were admitted into peer-reviewed journals undetected, casting doubt on the reliability of editorial procedures. The Guardian (2024) claims that AI-generated test responses were convincing enough to fool experienced human examiners. Furthermore, a rise in academic publications being retracted for plagiarism and fabrication related to artificial intelligence has been monitored by Retraction Watch (2024). Collectively, these examples show that although technology presents new opportunities, it also presents risks that companies and academics must manage to maintain academic integrity.

POLICY AND INSTITUTIONAL RESPONSES

More and more institutions are enacting policies and ethical guidelines to help address issues that generative AI raises in academia. These programs will address responsible use of AI, as well as the limitations and ethical issues (Emerging Research and Policy Themes on Academic Integrity in the Age of ChatGPT and Generative AI, 2023). Many scholars also suggest explicitly updating policies that

indicate that the unacknowledged use of AI tools is a form of academic misconduct (Eke, 2023).

SYNTHESIS

Student's Voices on Generative AI: Perceptions, Benefits, and Challenges in Higher Education. (2023). Journal of Educational Technology. Research Integrity in the Era of Generative Artificial Intelligence. (2023). Journal of Academic Ethics.

3. OBJECTIVES

- This explores both the advantages and challenges of [Gen.AI](#) in academic research.(Andersen,2025;Vasconcelos , 2025).
- This helps us to understand how Gen.A reshapes authorship, plagiarism,accountability and references.(Jian, 2025).
- This explore how universities, publishers, and policymakers are responding to the rise of AI in academia (COPE, 2023).
- This suggests practical steps that helps students, early career researchers, and institutions to use AI responsibly as possible.(Generative AI in Higher Education, 2023; Research Integrity in the Era of Generative Artificial Intelligence, 2023).
- This proposes ways in which academic integrity frameworks can in this AI era (The Guardian, 2025).

4. METHODOLOGY

This review paper used a systematic narrative review method to analyze the current research landscape on Generative Artificial Intelligence and academic integrity. The methodological structure was inspired by established practices used in AI-in-education research, including the systematic approaches of Plata, Kanna & Martin (2023) and the thematic review style of Wiredu et al. (2024).

Research Design

A systematic review of existing research was carried out to bring together what peer-reviewed studies say about how GenAI affects academic honesty, ethical research behaviour, and student learning. This review followed the clear and organised method used by Plata et al. (2023), who stress the importance of set criteria, grouping ideas into themes, and explaining each step openly. The process was also guided by Khrisat (2025), whose work highlights the value of comparing different sources and using several types of evidence to make the findings more reliable.

Strategy for Selection of Sources

This review was informed by six critical scholarly sources that variously spoke to the four areas of concern: GenAI-enabled plagiarism, academic integrity challenges, institutional governance, and the ethical risks associated with AI-assisted writing.

- Wiredu et al. (2024) – “GenAI and Academic Integrity in Ghanaian Universities”
- Plata, Kanna & Martin (2023) – “Academic Integrity in the Age of Generative AI: A Systematic Literature Review”
- Khrisat (2025) – “Impact of GenAI on Student Engagement: A Mixed-Methods Analysis”
- Francis et al. (2025) – “Balancing Innovation and Integrity in AI-Supported Learning”

Inclusion and Exclusion Criteria

Inclusion Criteria: The review was considered as peer-reviewed studies published from 2023 to 2025. The studies also need to be focused on GenAI, ChatGPT, or so on used in education or academics.

Research was selected if it discussed academic honesty, AI-related plagiarism, authorship issues, fake references, or how GenAI affects student learning. The

review also included papers that offered theories, research findings, or policy suggestions related to GenAI and academic integrity.

Exclusion Criteria:

- Technical AI/ML engineering studies irrelevant to academic integrity
- Opinion pieces and blog posts not based on scholarly support
- Research outside the domain of higher education or academic research ethics

These selection criteria reflect the selection logic from Plata et al. (2023), with an emphasis on thematic relevance and methodological robustness in systematic reviews.

Data Extraction and Thematic Analysis

A *thematic analysis* approach was adopted for the review to extract and classify data from each study:

1. Initial Familiarization: All papers were read thoroughly to identify recurring motifs related to the use of GenAI, patterns of misconduct, ethical consequences, and governance challenges.
2. Coding and Categorization: Inspired by frameworks proposed by Wiredu et al. (2024) and Plata et al. (2023), codes were clustered into the following dominant themes:
3. threats to academic integrity (plagiarism, ghostwriting, fake citations)
4. benefits of GenAI for learning and support
5. gaps in policy and regulation
6. research-ethics violations, authorship issues, and scholarly record manipulation
7. Triangulation:
Reliability was enhanced, following Khrisat (2025), through cross-comparison across empirical findings, conceptual analyses, and case studies.

Synthesis:

Themes were consolidated into an

analytical narrative that highlights contradictions and gaps in the existing literature on GenAI.

QUALITY ASSURANCE

Various validation techniques were combined to enhance methodological credibility and trustworthiness, including:

- Use of peer-reviewed, credible sources
- Reduction of coding bias through iterative theme revisiting
- Transparent documentation of procedures

The concerns raised by Eke (2023) and Francis et al. (2025) on responsible AI use further shaped the ethical considerations of this review.

ETHICAL CONSIDERATIONS

Since this study is based solely on published literature, no ethical approval was required. However, ethical standards were maintained by ensuring:

- Accurate representation of all authors' contributions
- Academic integrity through proper citation and synthesis
- Recognition of limitations related to misinformation risks posed by AI

5. ANALYSIS

The educational sector along with research operations experience transformations because of Generative Artificial Intelligence (GenAI). The educational system benefits from GenAI because it provides students with instant access to knowledge and automated writing assistance and customized learning approaches. The research findings demonstrate that ChatGPT and similar tools enhance student learning outcomes and academic performance yet create major problems regarding academic integrity.

Eke (2023) warns that students who misuse ChatGPT will lead to the disappearance of essays unless educational

institutions develop effective systems to control its use of the tool. The 3E Model proposed by Plata et al. (2023) consists of Education and Enforcement and Encouragement to support students in using AI ethically. The research conducted by Wiredu et al. (2024) at Ghanaian universities revealed that 72% of students believed AI enhanced their learning yet 75% expressed concerns about academic integrity problems. The scientific community faces a major threat to its credibility because GenAI systems can generate artificial research data according to Wilson and Burleigh (2025). The research by Khrisat (2025) demonstrates that AI tools boost student motivation yet students need proper instruction to avoid excessive dependence on these tools.

The research findings demonstrate that students face three main issues when using AI tools: they produce plagiarized content and generate false information and struggle to identify the original authors and they depend too heavily on automated tools. All researchers support the use of GenAI for positive purposes when appropriate guidance and policies exist.

Universities need to establish training programs which teach students and teachers about ethical AI usage while implementing honesty policies for AI-generated content and developing new assessment methods that emphasize creativity and understanding and enhancing plagiarism detection systems to identify AI-generated work. Educational institutions can strengthen their programs through responsible GenAI implementation which unites technological resources with authentic human work and honest academic practices.

6. RESULTS AND DISCUSSION

The review unequivocally demonstrated that generative AI is bringing both beneficial advancements and significant challenges to research and education.

- **What Researchers and Students Learned from GenAI**

Students actually learn more efficiently when using GenAI tools, according to a compelling finding from all the studies. Many students believed that AI made writing simpler, enhanced their capacity for thought organization, helped them comprehend challenging material, and increased their self-assurance to finish assignments. Additionally, researchers discovered that AI decreased workload by assisting with idea development, drafting, and summarizing. All things considered, the results demonstrate that GenAI may promote creativity, save time, and increase engagement when used properly.

- **Issues with Growing AI Utilization**

The evaluation also found some important risks. Several studies demonstrate that students frequently abuse AI by merely copying answers, which can result in plagiarism and a lack of original thought. AI systems may produce erroneous or inaccurate references, according to several research, which would undermine the study's trustworthiness. Overdependence, which happens when students rely too much on AI rather than honing their own skills, is another major problem. Furthermore, real-world examples shown that AI-generated essays and research papers occasionally failed to pass muster with instructors and examiners. Together, our results show a stark paradox: although GenAI enhances student learning, it also makes academic dishonesty easier in the absence of rules.

- **How Institutions Are Reacting**

Scholars, organizations, the media, and politicians have started creating rules for the proper use of AI as a

result of these contradictory results. Their main focus is on offering clear instructions, training, and updating evaluations to ensure that students continue to learn and think independently even in the presence of AI tools. Institutions concentrate on the appropriate and transparent implementation of AI because they recognize that outright prohibiting technology is impractical.

- **Overall Interpretation**

The discussion shows that GenAI is neither totally good nor totally awful when all the results are taken together; it all relies on how it is used. It can improve writing, make learning easier, and make research more accessible, but without standards, it can also compromise academic integrity. The research's primary conclusion is that educational systems need to revise their rules, create evaluation methods that encourage real understanding rather than mindless dependence on AI, and instruct students on how to use AI responsibly.

7. CONCLUSION

Generative AI applications like ChatGPT have great potential to transform learning, increase student motivation, and act as useful educational support systems. The pre-test and post-test results show positive impact on student engagement and motivation ($b = 0.28$ and $b = 0.35$). GenAI is commonly used by students to brainstorm, draft, edit and redraft work meaning more personalised learning can take place. But these benefits are not without concerns about academic 'cheating' such as undetected plagiarism, diminished originality and overdependence on AI. Therefore, guidelines for responsible use, training on AI literacy and new evaluation methods are necessary to guarantee ethical and effective integration.

8. FUTURE WORK

There are several limitations that should be considered in future work. First, since the development of generative AI tools is likely to continue for some time into the future, longitudinal studies are necessary to explore how student integrity, motivation and learning behavior evolve. Second, a future effort should focus on larger and cross-cultural samples with representation beyond the USA and include resource poor environments to identify differences in AI adoption in relation to culture and equity. Third, there is a need for experimental research to test interventions such as AI literacy training courses, revised assessments and staff development. These initiatives will contribute to the development of evidence-based strategies which can support the responsible and ethical usage of generative AI in education.

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