



ChatGPT in academic assessments: upholding integrity

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Abstract

This study examines the impact of AI, particularly ChatGPT, on academic integrity and assessment practices in higher education. As AI integration grows, concerns about its potential to undermine academic rigour and increase inequalities have surfaced. Through interviews with students and a lecturer, the research explores the benefits and challenges of using ChatGPT in academic work. The innovative approach of having students use ChatGPT to write assignments highlights both efficiency gains and the need for responsible use. Findings reveal the importance of using AI-generated content as a supplement rather than a replacement for traditional learning, with concerns about its potential misuse. The study advocates for updated integrity policies and clear guidelines to ensure AI enhances, rather than compromises, education. Emphasising ethical AI use and process-oriented assessments, the study offers strategies to promote fairness, integrity, and critical thinking in the digital age.

Keywords: ChatGPT; academic assessments; academic integrity; artificial intelligence.

Introduction

Artificial intelligence (AI), especially technologies like ChatGPT, is reshaping higher education, influencing teaching, learning, and evaluation methods. This study delves into AI's impact on academic integrity and assessment practices, seeking insights from students and a lecturer on AI's multifaceted role in education. With AI's growing presence, concerns about plagiarism, authenticity, and maintaining high standards have intensified, making its examination critical.

Recent literature underscores AI's expanding role and its challenges to academic integrity. Perkins (2023) highlights the difficulty in detecting AI-assisted dishonesty using conventional methods, while Ashford (2021) advocates for a blend of behavioural ethics and technology to foster ethical use among students. Moreover, AI's application in student assessments is evolving, offering both improvements in evaluating student knowledge and raising fairness concerns (Barrett, 2020; Liu et al., 2022). Despite the potential benefits, the need for updated academic integrity policies considering AI advancements is evident (Perkins, 2023), along with a more nuanced approach to integrating AI responsibly in educational settings (Ashford, 2021).

Focusing on an essay assignment facilitated by ChatGPT, this study explores AI's integration into coursework and its implications for academic integrity. Interviews with the involved parties shed light on the ethical, educational, and practical dimensions of AI use in academia. The findings aim to reveal AI's complex influence, advocating for ethical application and policy development to navigate AI's transformative potential responsibly.

Literature review

The integration of AI in education is transforming traditional learning and assessment methods, presenting both opportunities and challenges. AI-driven tools, such as adaptive learning platforms and automated grading systems, have shown promise in enhancing efficiency, personalising learning, and facilitating educational outcomes (Holmes et al., 2019; Sayed et al., 2020; Gupta, 2024). AI-powered adaptive learning systems tailor learning experiences by adjusting content delivery to match individual student needs and pace, providing personalised feedback that deepens understanding, engagement, and retention (Aggarwal et al., 2023; Tan et al., 2023; Gupta, 2024).

AI's role in increasing efficiency extends to research support and skill development, enabling students to focus on high-order thinking rather than routine tasks (Yuan et al., 2020; Singh and Mishra, 2021). By providing instant feedback and real-time insights, AI technologies create more responsive and engaging learning environments that help students more readily identify areas for improvement (Aggarwal et al., 2023). This use of AI for streamlining routine tasks supports educational goals but raises critical questions

about maintaining academic integrity when students rely heavily on AI for information processing and content generation (Holmes et al., 2019; Geirhos et al., 2020).

AI's role as a supplementary educational resource also encourages critical engagement with its outputs. Rather than serving as a shortcut, AI should prompt students to evaluate and interpret information actively, thus enhancing analytical skills and fostering knowledge acquisition (Singh and Mishra, 2021; Tan et al., 2023). Critical engagement with AI-generated content is essential to uphold academic standards and prevent misuse, as students might otherwise bypass deep learning in favour of AI-enabled shortcuts (Geirhos et al., 2020; Perkins, 2023).

As AI becomes embedded in assessments, it raises both possibilities for personalised testing and concerns about fairness and ethical use. Automated grading and intelligent tutoring systems offer scalable feedback mechanisms, allowing educators to adapt instruction based on student data (Owan et al., 2023; Vasconcelos and Santos, 2023). However, while empirical studies show AI's effectiveness in boosting educational outcomes (Gabriel, 2024; Gupta, 2024), AI-enabled assessments present unique challenges in maintaining equity and ensuring integrity. Socioeconomic factors influence students' access to AI, potentially leading to inequalities where those with better access can gain unfair advantages (Bottia et al., 2022; Ansor et al., 2023). Without targeted policy interventions, AI in education may widen existing educational gaps, necessitating equity-focused approaches (Holstein and Doroudi, 2021).

Ensuring equitable access to AI tools across educational settings is crucial to prevent disparities. Research reveals that access to AI-based resources is not uniform, resulting in unequal learning opportunities (Ansor et al., 2023). Addressing this inequity requires clear guidelines that promote ethical use and provide fair access to AI, preventing advantages for students with better resources (Bottia et al., 2022). Policies need to emphasise ethical AI integration in academic work to preserve academic rigour and fairness (Bu, 2022; Perkins, 2023).

Academic integrity in AI usage remains a pressing concern, particularly as traditional plagiarism detection tools struggle to identify AI-generated work (Khalil and Er, 2023; Perkins, 2023). The sophistication of AI-generated content challenges educators to distinguish genuine submissions from AI-assisted work, highlighting the need for updated

integrity policies that reflect AI's unique risks (Tahaei and Noelle, 2018). Detecting AI-assisted dishonesty and managing its ethical implications require institutions to adopt advanced detection technologies alongside human judgment (Perkins, 2023; Sadasivan et al., 2023).

To navigate the complexities of AI in education, ethical frameworks are necessary to guide both educators and students. Establishing guidelines rooted in fairness, transparency, and inclusivity can help foster a culture of integrity and responsible AI use (Aoun, 2021; Bogina et al., 2022). Embedding ethical principles into the curriculum, educators play a pivotal role in equipping students with the skills needed to navigate AI responsibly (Ferguson and Buckingham Shum, 2012; Van Meerten et al., 2024). Educating students on responsible AI use, including its limitations and risks, can mitigate overreliance on these tools, promoting a balanced approach that values human judgment alongside technological capabilities (Vasconcelos et al., 2022).

In response to these challenges, some studies recommend integrating process-oriented assessments, which focus on the learning journey and encourage critical analysis (Carless, 2015; Chang et al., 2023). This approach allows educators to evaluate students' engagement with AI in constructive ways, fostering analytical skills and ethical accountability. Furthermore, clear guidelines for AI use – such as proper citation and transparency – are essential to promote trust and maintain academic integrity (Selwyn and Facer, 2013; Cotton et al., 2023). By reinforcing the importance of process over outcome, educational institutions can encourage ethical AI use, shaping a learning environment that prioritises both integrity and innovation (Holmes et al., 2019; Van Meerten et al., 2024).

Finally, training and resources for educators and students are essential to support ethical AI integration. Workshops and guidelines on evaluating AI-generated information and combining it with traditional research can prevent overreliance on AI while fostering a critical approach to technology (Ferguson and Buckingham Shum, 2012; Vasconcelos et al., 2022). By promoting responsible and informed use, educational institutions can help students navigate AI's potential responsibly, preparing them for a digital age where integrity and innovation coexist (Chang et al., 2023; Perkins, 2023).

The assessment

The assignment formed part of a second-year undergraduate course in management accounting, taken by students enrolled in the MA Accounting and Finance and MA Business and Management degree programmes at the University of Glasgow. Student groups used ChatGPT 3.5 to write a 2,000-word essay on how big data impacts management accounting. Each group also delivered a 20-minute presentation based on their essay, which formed the basis of the summative assessment. Evaluation focused on students' critical engagement with AI, effective use of ChatGPT, and adherence to academic integrity by correctly using and citing AI-generated content.

To assist students with this new method, the course team provided an orientation on effectively using ChatGPT, including asking precise questions and assessing the accuracy of its responses, aiming to enhance learning and maintain assignment integrity.

Research methodology

This study employs a qualitative research approach, focusing on semi-structured interviews to understand the use and perception of ChatGPT in academic settings. The objective of this study is to explore the impact of AI on academic work, integrity, and the future of educational assessments.

The study included interviews with eight students representing eight separate groups – approximately 35% of the student groups that completed the assignment. Participants volunteered for the study, and to ensure their privacy, each was assigned a pseudonym. While the module lecturer was consulted to provide contextual background about the assessment, their input did not form part of the analytical dataset.

Semi-structured interviews were used to ensure key topics were covered while allowing flexibility for the conversation to flow naturally. The interviews explored:

- How students integrated AI into their academic work.
- Ethical considerations and academic integrity in using AI.
- Variations in how students engage with AI.

- Challenges and adaptations related to AI's capabilities.
- Perspectives on the future role of AI in education and assessments.

Interviews were conducted on Zoom, to take advantage of the transcribing function, and manually edited for accuracy. The analysis involved identifying key themes related to the research questions, with a continuous comparison method used to ensure a comprehensive representation of the participants' views. This iterative process helped in uncovering both expected and unexpected findings.

The study received ethical approval from the College of Social Sciences Ethics Committee at the University of Glasgow, ensuring participant confidentiality and ethical standards throughout the research process.

The analysis aimed to condense insights directly related to the research questions, using participants' quotes to illustrate key points. The findings, while specific to the study's participants, provide foundational insights for broader applications. Efforts to ensure objectivity included a participant validation process, in which interviewees were invited to review the transcripts of their own interviews and clarify or expand on their responses.

Although this is a preliminary study with a limited sample size, it seeks to establish a basis for further, more extensive research.

To enhance the clarity and accessibility of this manuscript, ChatGPT was employed to rephrase portions of the original draft, maintaining the intent and originality of the content while improving linguistic flow and coherence. This AI-based tool was used exclusively to refine language and organisation, without influencing the research content, interpretation of findings, or originality of the academic work. All AI-generated suggestions were critically reviewed and revised to ensure alignment with the intended meaning and context of the research.

Findings and discussion

The lecturer noted a wide range of grades, from 100% to 32%, which reflected the differing levels of student engagement with ChatGPT. This variance underscores the theme that

while some students critically engaged with AI outputs and demonstrated strong integration in their presentations, others showed more superficial or overreliant usage, aligning with concerns about misuse raised in the interviews.

A thematic analysis of the student interviews revealed several key themes. Student participants consistently highlighted AI's value in improving efficiency, simplifying academic tasks, and freeing time for skill development. They also expressed strong views about maintaining academic integrity, recognising the importance of critically engaging with AI outputs rather than relying on them uncritically. Concerns about fairness, particularly the potential for AI to create disparities in academic achievement, were also prevalent. Finally, participants discussed the difficulty of regulating AI use and the importance of clear institutional guidance. These themes inform the discussion that follows and offer insight into student perspectives on the integration of AI into academic assessments.

AI's role and impact in academic work

Several participants acknowledged the efficiency of AI in navigating the vast ocean of available information and simplifying complex academic concepts. Participant 1 appreciated the expedience AI offered, saying, 'It's very easy for me to find the answers I'm looking for rather than just Googling'. Participants highlighted the time and efficiency benefits of using AI, allowing them to focus on developing skills such as presentation and group collaboration. Participant 1 shared, 'Because I had less stress with writing the actual [essay]... we practised so much more [for the presentation]'.

Conversely, others advocated for a nuanced understanding of AI's role, viewing it as an informational resource akin to traditional materials but requiring critical engagement and thoughtful integration into one's work. Participant 8's remarks, 'help... inspire me a little or to help me if I, just to check if I've missed a point', suggested a pragmatic approach to AI, where its value is in enhancing the research process without compromising the authenticity of the academic endeavour.

The critical role of personal judgment in the decision-making process was highlighted by Participant 2, who explains how their acceptance of AI's output is contingent upon its

alignment with external research, 'that's how I decided to accept the output because... [if it] doesn't align with what's being said in reality, I wouldn't use it'.

Participants emphasised the importance of employing AI in a manner that enhances understanding without compromising the integrity of their academic work. Participant 3's experience of revising AI-generated content based on its substance and relevance reflects a sensible approach to ensuring that AI tools serve educational objectives effectively.

'We weren't happy with what it came out with... so from that, we decided to feed the AI articles... but some of the information was wrong, so again, we'd have to tell it to reference' (Participant 3).

The discussion reflects a broader debate on how to integrate AI tools like ChatGPT into educational practices in a way that respects and upholds academic integrity. The challenge lies in fostering an environment where AI is used responsibly – to augment rather than replace the learning process. As Participant 4 suggests, 'you can't actually properly use it to do your work unless you get it to expand upon it'. This insight points to the necessity of a balanced approach where AI serves as a catalyst for learning, prompting students to engage more deeply with the material rather than offering an easy way out.

These observations from participants align closely with findings in the existing literature. The efficiency and time-saving benefits of AI, as noted by Gupta (2024), support the idea that AI can free students from routine tasks, allowing them to focus on developing higher-order skills such as presentation and collaboration. However, the emphasis on critical engagement with AI-generated content, as described by Participant 8 and others, echoes the concerns raised by Geirhos et al. (2020) and Bottia et al. (2022), who argue that while AI offers significant educational advantages, its use must be tempered with critical thinking and rigorous academic standards to prevent the erosion of academic integrity. The need for AI to complement rather than replace traditional research methods, as highlighted by participants, is consistent with Perkins (2023), who stresses the importance of maintaining authenticity in academic work in the age of AI.

Challenges and ethical considerations of AI in education

The thematic analysis underscored a multifaceted understanding of academic integrity, fairness, and the ethical use of AI in education. Participants universally acknowledged the

criticality of submitting work that reflects their efforts and understanding. For example, Participant 1 articulated this by emphasising the need for work to be personally meaningful and fair, 'Knowing that it is my work I have done... I've earned... my grades'. This sentiment captures the argument by Ashford (2021) of behavioural changes as not only a matter of personal ethics but as foundational to the equitable assessment of academic achievements.

The conversation around AI tools like ChatGPT is marked by a careful consideration of how these technologies intersect with the values of academic integrity. Participant 4's perspective, 'So I don't believe it takes away from the integrity because you need to actually understand what you're saying in order to get a good ... response', showed that AI can enhance academic work without compromising integrity, if used to support rather than replace learning and understanding. Despite recognising the utility of AI, some participants express apprehension about its potential to undermine academic integrity. Participant 5's concerns, 'I know ... people use ChatGPT when I hadn't and I felt... hard done by for that', highlight the perceived risk of AI facilitating a shortcut through academic processes, potentially eroding the value of individual effort and learning.

These insights from participants reflect the nuanced relationship between AI usage and academic integrity, a theme well-documented in the literature. The emphasis on personal responsibility and fairness in academic work, as highlighted by Participant 1, aligns with Ashford (2021), who discusses how behavioural ethics are foundational to maintaining equitable academic assessments in the face of AI's growing influence. Additionally, Participant 4's perspective on the supportive role of AI echoes the findings of Holmes et al. (2019) and Ashford (2021), who argue that AI can indeed enhance learning outcomes when used to supplement rather than replace traditional educational practices. However, the concerns raised by Participant 5 regarding the potential for AI to undermine the integrity of academic work resonate with Perkins (2023) and Eaton (2023), who caution that the misuse of AI tools could diminish the value of individual effort and lead to ethical challenges in education.

Conversely, participants express a significant concern about the possibility that easy access to AI-generated answers could tempt students to bypass rigorous academic work. Participant 1 reflects on the broader implications for academic integrity, stating, 'I do wonder if people just use it instead of learning... It does make me maybe question the

integrity of the work of... other people'. This highlighted the critical issue of distinguishing between leveraging AI as a supplemental learning tool and relying on it to the extent that it diminishes the value of personal effort and understanding. This concern about the potential misuse of AI tools reflects the broader apprehensions discussed in the literature regarding the impact of AI on academic integrity. Participant 1's reflection aligns with the warnings presented by Geirhos et al. (2020) and Eaton (2023), who emphasise that the ease of accessing AI-generated content could lead students to bypass essential learning processes, ultimately undermining the educational experience. The critical distinction between using AI as a supplemental tool versus a replacement for personal effort and deep learning, as highlighted by Participant 1, echoes the arguments made by Holmes et al. (2019) and Ashford (2021), who advocate for responsible AI integration to ensure it enhances rather than detracts from the integrity and value of academic work. This connection underscores the importance of developing clear guidelines and educational strategies that encourage the ethical use of AI in academia, preserving the core values of effort and understanding.

AI's ability to quickly generate detailed responses is a double-edged sword: it greatly aids academic research but may hinder the development of critical thinking and problem-solving skills crucial for deep learning. Participant 7 articulates a common concern, '[current systems] can't come up as plagiarism... but if there is no consequence to you using it, then people will use it'.

Participants expressed consistent concerns about how AI tools like ChatGPT could undermine academic integrity by encouraging shortcuts and bypassing essential learning processes. Participant 1 reflected on this risk, echoing literature that warns of diminished academic rigour when students rely uncritically on AI (Geirhos et al., 2020; Eaton, 2023). Participant 7 raised further issues about the failure of current plagiarism detection systems to flag AI-generated content, aligning with the findings of Khalil and Er (2023). These concerns highlight the need for institutions to re-evaluate integrity policies and clarify acceptable use guidelines (Tahaei and Noelle, 2018; Perkins, 2023).

Beyond the risk of individual misuse, these findings raise broader questions about fairness and trust in the academic system. Students like Participant 5 voiced frustration at peers gaining unfair advantages through AI, suggesting a growing sense of inequity. Addressing this requires more than detection tools or punitive policies — it calls for open dialogue

about the role of AI in learning, transparent academic norms, and assessments designed to reward process and understanding over output alone.

Participants have raised significant concerns about the potential of AI, particularly ChatGPT, to introduce disparities in academic achievements. This unease stems from the notion that AI's utilisation could unfairly advantage some students, especially where its use is discouraged or explicitly banned. Highlighting this issue, Participant 5 voiced, 'It would really frustrate me if someone got a higher grade because of that... It's disheartening to see someone achieve a higher grade for essentially doing nothing'. This reflects the disillusionment among students who diligently follow academic integrity principles, only to witness others possibly circumventing these efforts through AI assistance. Participant 5 added another dimension to this concern by expressing a sense of being outpaced by peers in their use of AI: 'I probably use it in some form ... I just see others using it more effectively than I am'. This response highlights that the frustration was not solely about AI use itself, but also about the perceived inequity when others seemed to gain a greater academic advantage.

The difficulty of regulating AI use within academic settings is a recurring theme. Participants acknowledge the challenge educators face in distinguishing between legitimate and illegitimate uses of AI tools. The dilemma lies in both detecting AI-assisted work and establishing clear guidelines that delineate acceptable from unacceptable uses of technology. Participant 7 voiced a common concern,

I actually don't know what the uni could do because... it can't come up as plagiarism, if there's no way of checking if someone's work is completely from themselves or if a software has helped them to write whatever they're submitting.

Suggestions for addressing the misuse of AI tools in academic work range from enhancing the rigour of academic integrity policies to more innovative approaches. These include integrating AI into the curriculum in ways that leverage its potential to support learning while minimising opportunities for unfair advantage. Participant 3 provided a constructive perspective, suggesting, 'The [management accounting 2] course... was really smart because you couldn't actually benefit from the AI. You had to do it yourself'.

The discussion highlights ethical concerns with AI use, stressing the need for an educational environment that promotes integrity and equal access to resources.

Participant 5's reflection, 'I understand why... if you think you can then why wouldn't you, but... I would feel like that was unfair', highlights the moral quandaries students face when considering AI use, considering competitive academic pressures.

The challenge of integrating AI while adhering to the principles of academic integrity is acknowledged. Participants express a need for transparency and proper citation when using AI in academic work. Participant 2 suggests, 'state as a source', indicating a desire for clearer guidelines on how to ethically use AI tools within academic work.

Suggestions for integrating AI into academic assessments include promoting AI as a learning tool rather than a shortcut for completing assignments. Participant 3 advocated for 'using it as a learning tool instead of using it to cheat', emphasising the educational value of AI in understanding and expanding upon course material. Furthermore, the idea of incorporating AI use into the structure of assignments to ensure a level playing field is discussed. Participant 5 suggested making AI use part of standard academic assessment, 'If we're all told to use it, then no one... benefits'.

Participants underscore the critical issue of AI's reliability, particularly concerning the accuracy of the information it provides. The challenge of discerning AI-generated content's credibility is a significant concern. Participant 2 shared an illustrative example, 'I could tell [a group member's] paragraph... was copy-and-pasted from ChatGPT because it had all the same formatting'. This observation highlights the need for vigilance in verifying AI-generated information, underscoring the importance of critical engagement with the material rather than uncritical acceptance.

These participants' concerns resonate with the broader literature on the ethical implications of AI in education, particularly regarding fairness, academic integrity, and the challenges of regulating AI use. The anxiety over AI creating disparities in academic achievements aligns with the findings of Bottia et al. (2022), who discuss how socioeconomic factors and differential access to AI tools can exacerbate educational inequalities. The difficulty in detecting AI-assisted work, as noted by Participant 7, echoes the challenges highlighted by Perkins (2023) and Khalil and Er (2023), who point out the limitations of current plagiarism detection technologies in identifying AI-generated content. These concerns underscore the need for robust academic integrity policies and the development of innovative approaches that integrate AI into the curriculum in ways that

minimise opportunities for unfair advantage, as suggested by Perkins (2023) and Ashford (2021).

Furthermore, the emphasis on using AI as a learning tool rather than a shortcut, as advocated by Participant 3, aligns with the literature's call for educational strategies that promote critical engagement with AI. This perspective reflects the arguments made by Holmes et al. (2019) and Tahaei and Noelle (2018), who emphasise the importance of ensuring that AI enhances rather than compromises the learning process. The concerns about AI's reliability and the need for critical engagement with AI-generated content, as highlighted by Participant 2, are consistent with the warnings of Yuan et al. (2020) regarding the necessity of verifying AI-generated information to maintain academic rigour. These connections highlighted the complexity of integrating AI into educational practices and the importance of developing clear guidelines and equitable strategies to ensure that AI serves as a catalyst for learning while upholding the principles of academic integrity.

Conclusion

This study explored how students engaged with ChatGPT in academic assessments, the ethical challenges it posed, and its implications for academic integrity. Participants acknowledged the efficiency and time-saving benefits of AI, particularly in simplifying complex academic tasks and freeing time to develop other valuable skills such as presentation and collaboration. However, they also emphasised the importance of critically engaging with AI-generated content to ensure it enhances rather than undermines the educational process. This view is consistent with existing literature, which supports the responsible use of AI to complement traditional learning approaches rather than replace them (Holmes et al., 2019; Gupta, 2024).

The ethical concerns surrounding AI usage, particularly the potential for it to undermine academic integrity, were a recurring theme among participants. These concerns are mirrored in the broader academic discourse, with scholars warning that the uncritical use of AI tools could lead to a decline in personal effort and academic rigour (Eaton, 2020; Geirhos et al., 2020). The challenges of regulating AI within academic settings, including detecting AI-assisted work and establishing clear guidelines, were also highlighted, reflecting the difficulties noted in the literature regarding the limitations of current

technologies and the need for regularly reviewed and updated policies (Khalil and Er, 2023; Perkins, 2023).

Participants' concerns about AI creating disparities in academic achievement further underscore the importance of equitable access to AI tools and the development of educational strategies that promote fairness. This aligns with the findings of Bottia et al. (2022), who discuss the potential for AI to exacerbate existing inequalities. The study also highlights the necessity of integrating AI into academic assessments in a way that promotes learning and critical engagement, as emphasised by Perkins (2023) and Tahaei and Noelle (2018).

Recommendations

1. Foster Open Discussion about AI Use

Encourage open dialogue about using AI tools like ChatGPT in academia. Lecturers should model discussing AI's benefits and risks and incorporate ethical AI usage discussions into their courses. This makes AI's role in academia clearer and motivates students to thoughtfully apply AI in their work.

2. Emphasise Process Over Outcome in Assessments

Change assessment emphasis from final products to the learning and research process. Include assessment of students' use of AI for research, emphasising critical analysis and integration of AI-generated content. Use presentations with a question-and-answer component, or process journals to evaluate students' AI engagement and decision-making.

3. Implement Training and Resources for Ethical AI Use

Provide training, workshops, and resources on ethical AI use in academic work. This should include evaluating AI information, combining it with conventional research methods, and upholding academic integrity. Institutions should also provide guidance and develop resources to support the ethical use of AI, rather than relying on detection tools, which remain limited and fallible.

By adopting these recommendations, lecturers can play a pivotal role in preparing students for a future where AI is an integral part of the educational landscape.

Encouraging ethical, critical, and creative engagement with AI tools not only enhances learning outcomes but also ensures that students are equipped with the skills necessary to navigate the digital age with integrity and innovation.

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