

TECHNOLOGY AND ETHICS: A PHENOMENOLOGICAL STUDY OF LECTURERS' EXPERIENCES IN SUPERVISING ARTIFICIAL INTELLIGENCE USE AMONG UNIVERSITY STUDENTS

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Abstract. This study examines the use of Artificial Intelligence (AI) in higher education, focusing on its implications for students' critical thinking skills and academic integrity. Although the use of AI tools such as ChatGPT and Grammarly is becoming increasingly common in the completion of academic assignments, understanding of how lecturers monitor and respond to their use remains limited. This study aims to uncover the strategies, challenges, and experiences of lecturers in monitoring students' use of AI. The study employs a phenomenological qualitative approach, involving six lecturers from various universities in Indonesia. Data were collected through semi-structured in-depth interviews and analysed using thematic analysis, which includes the stages of transcription, repeated reading, data coding, grouping codes into themes, and interpretation of meaning. The results indicate that lecturers identify AI use through discrepancies between students' oral and written abilities, rigid and repetitive language patterns, and inconsistencies in the academic writing process. The findings also suggest that over-reliance on AI has the potential to weaken critical thinking skills and threaten the authenticity of academic work. The main challenges faced by lecturers include limited detection tools, the absence of clear institutional policies, and ethical dilemmas in balancing technological innovation and academic integrity. This study highlights the importance of strengthening AI literacy, robust policies, and process-based assessment.

Keywords: Artificial Intelligence; Academic Integrity; Higher Education

Abstrak. Penelitian ini mengkaji penggunaan Artificial Intelligence (AI) dalam pendidikan tinggi dengan fokus pada implikasinya terhadap kemampuan berpikir kritis dan integritas akademik mahasiswa. Meskipun pemanfaatan alat AI seperti *ChatGPT* dan *Grammarly* semakin umum dalam penyelesaian tugas akademik, pemahaman mengenai bagaimana dosen memantau dan merespons penggunaannya masih terbatas. Penelitian ini bertujuan untuk mengungkap strategi, tantangan, dan pengalaman dosen dalam mengawasi penggunaan AI oleh mahasiswa. Penelitian menggunakan pendekatan kualitatif fenomenologis dengan melibatkan enam dosen dari berbagai perguruan tinggi di Indonesia. Data dikumpulkan melalui wawancara mendalam semi-terstruktur dan dianalisis menggunakan analisis tematik, yang meliputi tahap transkripsi, pembacaan berulang, pengodean data, pengelompokan kode menjadi tema, dan interpretasi makna. Hasil penelitian menunjukkan bahwa dosen mengidentifikasi penggunaan AI melalui perbedaan antara kemampuan lisan dan tulisan mahasiswa, pola bahasa yang kaku dan berulang, serta inkonsistensi dalam proses penulisan akademik. Temuan juga mengindikasikan bahwa ketergantungan berlebihan pada AI berpotensi melemahkan kemampuan berpikir kritis dan mengancam keaslian karya ilmiah. Tantangan utama yang dihadapi dosen meliputi keterbatasan alat deteksi, belum adanya kebijakan institusional yang jelas, serta dilema etika dalam menyeimbangkan inovasi teknologi dan integritas akademik. Penelitian ini menegaskan pentingnya penguatan literasi AI, kebijakan yang tegas, dan penilaian berbasis proses.

Kata Kunci: Kecerdasan Buatan; Integritas Akademik; Pendidikan Tinggi

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INTRODUCTION

Digital technology has reshaped higher education in ways that extend beyond access to information, influencing how knowledge is produced, evaluated, and communicated. One of the most consequential developments in this transformation is the integration of artificial intelligence (AI) into academic practices. AI-based tools that rely on natural language processing are increasingly embedded in higher education to support academic writing, language learning, and research activities (Holmes et al., 2021; Kasneci et al., 2023). Applications such as ChatGPT, Grammarly, and QuillBot are now commonly used by students to generate ideas, revise language, paraphrase texts, and assist with academic assignments. This shift marks a qualitative change in how students engage with writing tasks, moving AI from a peripheral aid to a routine academic resource.

At the same time, the growing use of AI in academic writing challenges traditional assumptions about learning and authorship. Academic writing has long functioned as a key indicator of students' understanding, critical thinking, and ability to construct arguments independently. AI-assisted writing blurs the boundary between legitimate support and original intellectual contribution, making it increasingly difficult to determine where student agency ends and automated assistance begins. This ambiguity has sparked debate among educators and policymakers about whether AI should be framed primarily as a learning aid or as a threat to core academic values (Foltynek et al., 2023; Kasneci et al., 2023).

Concerns about academic integrity are central to this debate. Academic integrity is grounded in principles of honesty, responsibility, and fairness, all of which are challenged by unacknowledged AI-generated content. Unlike conventional plagiarism, AI-produced texts are often original in wording and structure, rendering them difficult to detect through standard plagiarism detection systems. Consequently, existing regulatory frameworks and institutional mechanisms are frequently inadequate for addressing AI-related misconduct (Perkins, 2023). These limitations complicate lecturers' efforts to ensure fair assessment and uphold academic standards.

Beyond ethical considerations, AI use also raises pedagogical concerns related to cognitive development. Writing is not only a communicative skill but also a cognitive process involving analysis, evaluation, and synthesis. Excessive reliance on AI risks reducing students' engagement in these higher-order thinking processes, potentially weakening critical thinking skills that are central to higher education (Kasneci et al., 2023; Zawacki-Richter et al., 2023). At the same time, research acknowledges that AI can offer meaningful pedagogical benefits when used responsibly, including timely feedback, language support, and assistance for

students with learning difficulties (Cotton et al., 2024). These contrasting effects position AI not as inherently harmful or beneficial, but as a technology whose impact depends on how it is governed and integrated into learning practices.

In the Indonesian higher education context, AI adoption has accelerated, particularly following the COVID-19 pandemic, which normalized technology-mediated learning. However, this rapid uptake has not been accompanied by equally clear institutional policies regulating AI use in academic work. As a result, lecturers and students often operate within uncertain ethical and regulatory boundaries (Alsharefeen & Al Sayari, 2025). Lecturers are expected to supervise AI use, yet they face practical challenges stemming from limited detection tools, ambiguous guidelines, and the subjective nature of identifying AI-assisted writing (Perkins, 2023).

Despite the growing relevance of these challenges, existing research has tended to focus on students' perceptions or policy-level ethical debates, with relatively little attention given to lecturers' lived experiences. This study addresses that gap by examining lecturers' experiential perspectives on supervising AI-assisted academic work in Indonesian higher education through an in-depth qualitative approach. By exploring how lecturers identify AI use, the challenges they encounter, and the strategies they employ, this research offers empirical insights that can inform more context-sensitive and ethically grounded approaches to AI supervision in higher education.

METHOD

This study employed a qualitative approach with a phenomenological design to explore lecturers' experiences in supervising the use of Artificial Intelligence (AI) in students' academic work. A qualitative approach was selected because it enables an in-depth understanding of participants' perspectives, meanings, and experiences in natural settings (Creswell, 2014). The phenomenological design was used to capture the essence of lecturers' lived experiences in dealing with the emerging phenomenon of AI use in higher education (Creswell & Poth, 2018). The study was conducted in several higher education institutions in Indonesia, particularly in language and education. The research subjects were six lecturers selected using purposive sampling, as this technique allows the selection of participants who have relevant experience with the research topic (Patton, 2002). The criteria were: (1) actively teaching at the university level, (2) familiar with AI-based tools such as ChatGPT, Grammarly, or QuillBot, and (3) having experience identifying or dealing with students' use of AI in

academic assignments. The number of participants was determined based on data saturation, where no new significant information emerged (Guest et al., 2020).

Data were collected through semi-structured in-depth interviews, which are suitable for exploring participants' subjective experiences and interpretations (Steinar Kvale & Brinkmann, 2009). An interview guide was developed to ensure consistency while allowing flexibility in responses. The interviews covered several aspects, including lecturers' understanding of AI, identification of AI use in students' work, challenges in supervision, ethical concerns, and strategies to maintain academic integrity. Each interview lasted approximately 45–90 minutes and was conducted either face-to-face or online. All interviews were audio-recorded with participants' consent and transcribed verbatim to maintain data accuracy. The data were analyzed using thematic analysis. The analysis involved several steps: (1) familiarizing with the data through repeated reading, (2) generating initial codes, (3) grouping codes into themes, (4) reviewing and refining themes, and (5) interpreting the findings. This method allowed the identification of key themes related to lecturers' strategies, challenges, and perceptions of AI use in academic contexts.

To ensure the trustworthiness of the data, member checking was conducted by returning interview transcripts and initial interpretations to participants for validation. This process helped confirm the accuracy of the findings and reduce researcher bias. Additionally, an audit trail was maintained to document all research procedures and analytical decisions. This study did not involve experimental intervention. Ethical considerations were ensured by obtaining informed consent from all participants, guaranteeing confidentiality, and anonymizing participant identities. The research adhered to institutional ethical standards for studies involving human participants

RESULTS

The findings of this study are derived from a thematic analysis of interview data obtained from six lecturers. Each theme is further elaborated through several sub-themes that are grounded in participants' responses. These themes collectively represent lecturers' experiences, perceptions, and practical considerations in responding to the increasing integration of Artificial Intelligence within academic activities.

Table 1. Result of Interview

No	Theme	Description	Evidence
1	Identification of AI Use	Gap between oral and written ability	“There is a gap between their written work and their understanding” (P1); “They cannot explain their own writing” (P2)
		Rigid and repetitive writing patterns	“AI text is too structured and consistent” (P2); “Too sophisticated vocabulary” (P6)
		Process-based detection	“If the final result is very different from the draft, I suspect AI use” (P5)
2	Impact on Originality	Decline in critical thinking	“They no longer think critically” (P3); “Students become less creative” (P5)
		Threat to academic integrity	“Students are not honest in completing tasks” (P2); “They rely on AI more than their understanding” (P1)
		Uniformity of writing style	“Many works feel similar” (P6); “Too structured and artificial” (P3)
3	Challenges in Supervising AI Use	Limited detection tools	Lecturers rely more on manual judgment than tools (P5)
		Lack of institutional policy	Lecturers report unclear or varying rules (P1)
		Ethical dilemma	Lecturers face uncertainty in deciding fair evaluation (P1, P3)
4	Lecturers’ Strategies in Supervising AI Use	Use of AI detection tools	Used for initial screening only (P1, P2, P3)
		Process-oriented assessment	“I compare pre-test and final work” (P4)
		Ethical awareness	Lecturers explain rules at the beginning of class (P3, P4)

DISCUSSION

Identification of AI Use in Students’ Writing

The results show that lecturers most often notice AI use when there is a clear mismatch between students’ oral explanations and the quality of their written work, accompanied by rigid language patterns and stylistic inconsistency. Previous studies indicate that AI-generated texts tend to display high grammatical accuracy, coherence, and structural uniformity that may exceed the writer’s actual competence (Cotton et al., 2023; Perkins, 2023). From a constructivist learning perspective, this discrepancy is meaningful because knowledge is understood as something actively constructed through engagement, reflection, and meaning-making. Writing therefore functions not only as a product, but as evidence of cognitive processes such as understanding, reasoning, and synthesis. When students are unable to explain or justify what they have written, it suggests that the text is not grounded in personally constructed knowledge, but instead reflects externally generated content with limited internalization.

This interpretation is reinforced by Zhai (2022), who found that AI-generated writing often follows polished yet repetitive patterns, supporting lecturers' observations of rigid and formulaic structures. However, the reliance on human judgment as the primary detection mechanism remains a major limitation. Although lecturers' pedagogical experience enables them to identify inconsistencies between spoken and written performance, such assessments are inherently subjective and lack consistency. This concern aligns with Khalil and Er (2023), who argue that manual AI detection is unreliable and potentially biased. As a result, while lecturers' intuitive approaches remain practically useful, the absence of standardized detection frameworks highlights a widening gap between constructivist pedagogical expectations that emphasize knowledge construction and the rapid advancement of AI technologies capable of producing texts without genuine cognitive engagement.

Impact of AI Use on Academic Originality

The study shows that using AI without limits makes people less able to think critically, compromises academic honesty, and creates uniform writing styles. These results agree with Kasneci et.al (2023) argument that generative AI may make students less interested in thinking by taking over important thinking tasks. Bloom's Taxonomy can help explain this problem in more detail, especially when it comes to higher-order thinking skills like creation, evaluation, and analysis. When students depend on AI a lot, they tend to work at lower cognitive levels, which slows their intellectual growth. Also, the danger to academic honesty fits with Susnjak's (2022) point that the line between using AI to help with schoolwork and cheating is not always clear. Not being able to tell the difference between original work and work made by AI raises real concerns about authenticity and fairness in assessment. The rise of uniform writing styles backs up what Dwivedi et al. (2023) say: AI systems make outputs that are linguistically consistent but lack personal voice and creativity. This standardisation takes away from the variety of academic writing and makes it harder for students to create their own writing identities. Despite this, it is important to remember that AI is not inherently bad. Studies like Lo's (2023) show that AI can improve the quality of writing when it is used to help with thinking rather than as a replacement for it. So, the study's findings show that the bad effects are more likely caused by bad use of technology than by the technology itself.

Challenges in Supervising AI Use

The results indicate that lecturers face practical challenges in supervising AI use, including limited detection tools, unclear institutional guidelines, and the need to make discretionary judgments about acceptable and unacceptable use. These conditions mirror findings by Akgun and Greenhow (2022), who argue that higher education institutions remain underprepared for rapid AI adoption. In the absence of standardized policies, lecturers are compelled to develop their own classroom-level decisions, such as whether AI tools may be used for brainstorming, language editing, or drafting assignments. Lim et al. (2023) similarly note that unclear institutional regulation shifts responsibility to individual lecturers, resulting in inconsistent supervisory practices across courses.

From the perspective of the Technology Acceptance Model (TAM) (Davis, 1989), these classroom decisions are shaped by lecturers' perceptions of AI's usefulness and ease of use in supporting learning objectives. When lecturers perceive AI as helpful for improving writing quality or efficiency, they may allow limited use while emphasizing disclosure and reflection. Conversely, when AI is seen as undermining assessment validity or learning outcomes, lecturers tend to restrict or prohibit its use altogether. However, insufficient training and limited understanding of AI capabilities weaken lecturers' perceived control, making it difficult to translate ethical principles such as transparency and responsibility, as outlined by UNESCO (2023), into concrete supervisory strategies. This gap highlights a tension between policy-level ethical expectations and the everyday pedagogical decisions lecturers must make when supervising AI use in real classroom contexts.

Lecturers' Strategies in Supervising AI Use

Some of the strategies used by lecturers in this study are process-based assessment, the use of AI detection tools, and raising students' social awareness. These strategies are in line with what Perkins et al. (2023) say should be done in reaction to AI technologies: moving from a product-based to a process-based approach to assessment. The focus on writing processes, like drafts, pre-tests, and writing in class, is in line with the ideas of authentic assessment, which say that evaluating learning processes is more important than evaluating finished products. This method lets teachers better see how their students' minds are growing and lowers the chance that AI will be misused. Promoting ethical knowledge is also related to the idea of AI literacy (Long & Magerko, 2020), which means knowing what AI can do, what it can't do, and how it affects ethics. Instead of just using punishments, teachers can encourage academic honesty by teaching their students how to use AI in a smart way. However, the fact that AI recognition

tools are used as the first step in the screening process shows another weakness. Liang et al. (2023) discovered that these kinds of tools often give mixed results and can't reliably tell the difference between text written by humans and text written by AI. So, the study's methods are good for teaching, but they are still scattered and don't follow any institutional standards.

CONCLUSION

This study aimed to explore lecturers' experiences in supervising the use of artificial intelligence (AI) in students' academic work within higher education. The findings demonstrate that lecturers identify AI-assisted work through discrepancies between students' oral and written performance, rigid and repetitive writing patterns, and inconsistencies in the writing process. These indicators suggest that AI-generated content often fails to represent students' actual cognitive engagement. The study also reveals that excessive reliance on AI may weaken students' critical thinking and creativity, while simultaneously posing challenges to academic integrity, particularly with regard to originality and authorship. In relation to the challenges of supervision, the study identifies several constraints faced by lecturers, including the limited reliability of AI detection tools, the absence of clear institutional policies, and ethical dilemmas in evaluating AI-assisted assignments. To address these challenges, lecturers employ various strategies such as emphasizing process-based assessment, using AI detection tools as preliminary indicators, and promoting ethical awareness among students.

Overall, the study achieves its research objective by providing an in-depth understanding of how lecturers perceive, identify, and manage AI use in academic contexts. By foregrounding lecturers' lived experiences in Indonesian higher education, this study offers empirical insights that can inform the development of clearer policies, targeted AI literacy initiatives, and more effective supervision practices to support ethical and meaningful learning in the era of artificial intelligence.

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