

## ACADEMIC RESPONSIBILITY IN ARTIFICIAL INTELLIGENCE (AI): LECTURERS' VIEWS ON CULTIVATING ETHICAL CHATBOTS

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### Abstract

The rapid advancements in Artificial Intelligence (AI) technology, particularly the emergence of AI chatbots, have significantly impacted the educational landscape. As these chatbots become increasingly integrated into teaching and learning practices, lecturers must actively shape their usage as a force for good. This empirical study examines university lecturers' opinions on their responsibilities for ensuring the ethical and beneficial use of AI chatbots in their classrooms. This paper is couched in the Transformative Learning Theory, which emphasises how lecturers critically reflect on their beliefs and experiences to transform their perspectives and practices. A qualitative research methodology, in the form of Interpretative Phenomenological Analysis (IPA), was employed through individual interviews to explore lecturers' perceptions of AI chatbots in their teaching and learning. A purposive sample of eight lecturers in the Department of Educational and Professional Studies at the University of Technology was used to collect data. The study examined the key challenges and opportunities presented by AI chatbots, as well as the strategies and considerations that lecturers believe are essential to ensure these technologies support ethical, inclusive, personalised, and compelling learning experiences. The findings contribute to the ongoing discourse on integrating AI in education and provide valuable insights for educational institutions and lecturers seeking to harness the potential of AI chatbots while mitigating the risks.

**Keywords:** *Artificial Intelligence, chatbots, ethics, interpretative phenomenological analysis, university.*

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### 1. Introduction

The rapid advancement and integration of artificial intelligence into various facets of modern life have ignited critical discussions about the ethical implications and responsibilities associated with its development and deployment (Lu et al., 2023). Given the pervasive nature of AI, it is crucial to thoroughly understand its potential impacts, particularly within educational contexts that shape future generations (Labor et al., 2015). AI-powered chatbots, such as ChatGPT, have emerged as transformative tools, providing personalised support and enhancing the educational experiences of both lecturers and students (Chukwuere, 2024). As AI systems transition from being simple tools to perceived autonomous agents, it becomes essential to address the ethical dimensions of their decision-making processes as well as their broader societal and legal ramifications (Dignum, 2018). Educational institutions bear the responsibility of equipping student teachers with the skills to navigate the complexities of AI while also instilling a strong moral compass that will guide their innovations (Saleh et al., 2025). This necessitates a shift towards curricula that not only include technical training but also integrate ethical considerations, fostering a holistic approach to AI education. The objective is to prepare student teachers for the ethical challenges they may face in their future careers by imparting the critical ethical knowledge and skills necessary to adeptly navigate the complexities of AI technologies (Usher & Barak, 2024).

A key aspect of this responsibility involves proactively addressing the ethical implications of AI chatbots. Lecturers must ensure that such technologies adhere to principles of transparency, accountability, and respect for individual privacy and autonomy. This may involve establishing clear guidelines and policies for the appropriate use of AI chatbots and providing comprehensive training for both faculty and students on the ethical considerations surrounding their implementation.

Additionally, lecturers must be equipped with the necessary knowledge and skills to effectively leverage AI chatbots in their teaching practices. This includes understanding the technical capabilities and limitations of these technologies, as well as strategies for seamlessly integrating them into course curricula and learning activities to enhance student engagement and learning outcomes.

Furthermore, lecturers have a responsibility to ensure that the development and deployment of AI chatbots in higher education are inclusive and equitable, catering to students' diverse needs and learning preferences. By proactively addressing these challenges, lecturers can play a crucial role in shaping AI chatbots as a transformative force that positively impacts the educational landscape, fostering innovation, efficiency, and inclusivity.

Moreover, lecturers are uniquely positioned to influence the trajectory of AI usage by promoting research and innovation that prioritize ethical considerations and societal well-being. In light of these factors, this study aims to explore lecturers' perspectives on academic responsibility in AI, with a focus on the cultivation of ethical chatbots. It examines how educators approach integrating ethical considerations into their AI within the curriculum, particularly regarding the use of chatbots in teaching and learning. Three research questions guide this study. These questions explored lecturers' understanding and perceptions of deploying ethical AI chatbots in their classes. The study attempted to answer the following questions. **Question 1:** What are the critical responsibilities of university lecturers in shaping AI chatbots to be a force for good in higher education? **Question 2:** How can university lecturers address the ethical considerations of using AI Chatbots in academic settings, particularly academic integrity and plagiarism? **Question 3:** How can university lecturers leverage AI Chatbots to enhance teaching practices and improve student teachers' learning outcomes?

This paper is grounded in Transformative Learning Theory, pioneered by Jack Mezirow, which posits that learning involves critically examining and revising assumptions, beliefs, and values to develop a more inclusive, discriminating, and integrative perspective. This theory emphasizes the importance of reflection, critical discourse, and rational assessment of assumptions in facilitating personal and societal change. It emphasises the importance of challenging existing frames of reference and adopting new perspectives through informed reflection and critical analysis. Transformative learning involves a shift in consciousness, enabling individuals to make more informed decisions and take meaningful action in their lives (Gill et al., 2023). Mezirow identified ten distinct phases in the transformative learning process, starting with a disorienting dilemma that challenges an individual's existing beliefs and assumptions. This dilemma prompts self-examination and critical reflection on one's assumptions and values, leading to the recognition that one's discontent and the process of transformation are shared experiences (Lalor et al., 2015). Exploring options for new ways of acting then follows, building competence and self-confidence in new roles, committing to a plan of action, acquiring knowledge and skills for implementation, and ultimately integrating the new perspective into one's life (Lalor et al., 2015). This process highlights the iterative and deeply personal nature of transformative learning (Lalor et al., 2015).

Applying transformative learning theory to the context of AI in education, particularly in relation to ethical AI chatbots, offers a valuable lens through which to examine lecturers' roles and responsibilities. Lecturers, as key stakeholders in shaping the future of education, must critically assess their assumptions and beliefs about AI, its potential impact on teaching and learning, and its ethical implications.

Lecturers should engage in critical reflection on the ethical considerations surrounding the use of AI chatbots, including issues of bias, fairness, transparency, and accountability. This reflective process can lead to a deeper understanding of the potential harms and benefits of AI in education, as well as the need for ethical guidelines and practices. Lecturers can reevaluate their roles in light of AI advancements, considering how they can leverage AI tools to enhance teaching and learning while upholding ethical standards and academic integrity (Grieve et al., 2021).

## 2. Methodology

This study is situated within the interpretivism paradigm, which posits that reality is constructed through individuals' interactions with their surrounding environment (Maree, 2007). People shape the social world by sharing meanings, engaging with one another, and forming relationships (Maree, 2007). From the interpretive paradigm's perspective, research is motivated by the desire to understand human nature. Consequently, this study was conducted to gain insights into lecturers' perceptions of Artificial Intelligence (AI) chatbots and their applications in teaching and learning practices.

In keeping with the chosen paradigm, this research employed qualitative methods, specifically Interpretative Phenomenological Analysis (IPA). IPA is particularly well-suited for this study, as it focuses on understanding how individuals make sense of their lived experiences. This approach is advantageous for analyzing subjective experiences and uncovering the meanings that individuals attribute to those experiences (Tuffour, 2017).

The target population comprised lecturers who were approached and interviewed using open-ended, self-administered questions. Eight lecturers from the Department of Educational and Professional Studies at the University of Technology in South Africa were purposively selected to participate in this study. These participants were carefully chosen based on their experience and expertise

in AI usage and education, ensuring a diverse range of perspectives on the ethical challenges and responsibilities associated with AI. The interviews explored lecturers' perceptions of academic responsibility regarding AI, their strategies for incorporating ethical considerations into their curricula, and their perspectives on the challenges and opportunities in promoting ethical chatbots. Thematic analysis was employed to identify recurring patterns and key themes within the interview data, providing a nuanced understanding of lecturers' perspectives on the ethical dimensions of AI education.

### 3. Findings and discussions

The collected data was analysed thematically to identify key perceptions and opinions of the lecturers on cultivating ethical chatbots and their integration into learning. The thematic analysis of the interview data revealed several key themes regarding university lecturers' perspectives on their responsibilities in shaping AI chatbots as a force for good.

#### ***Promoting Ethical and Responsible AI***

The lecturers emphasised their responsibility in advocating for the ethical and responsible usage of AI chatbots. They believed that university lecturers should actively engage with different AI chatbots, policymakers, and other stakeholders to ensure that the deployment of these technologies prioritises principles such as transparency, accountability, and fairness (Khan, 2024). Two of the participants stated that,

*L3: "We have to ensure that these AI systems are not perpetuating biases or making decisions that could unfairly disadvantage certain students."*

*L6: "Lecturers have the responsibility to shape AI chatbots' usage in alignment with the fundamental values of higher education, which encompass critical thinking, intellectual discourse, and the pursuit of knowledge."*

#### ***Integrating AI Ethics into the Curriculum***

The participants emphasised the importance of incorporating AI ethics and societal implications into their course curricula. By educating student teachers on the ethical considerations surrounding AI, they can empower the next generation of leaders and innovators to navigate the complexities of these technologies responsibly. Another lecturer indicated that:

*L2: "As lecturers, it is our responsibility to provide student teachers with the knowledge and critical-thinking skills necessary to assess the ethical, social, and environmental implications of AI chatbots and other emerging technologies."*

Lecturers recognized their responsibility in exploring effective ways to integrate AI chatbots into the curriculum, leveraging their capabilities to enhance teaching and learning, while maintaining the human element in education. As one lecturer noted,

*L: 7 "We need to find a balance between AI efficiency and the personalised attention that student teachers require from their lecturers."*

#### ***Skill Development***

Lecturers expressed the need to guide student teachers in developing critical thinking and digital literacy skills to effectively navigate and utilise AI chatbots, recognising that these technologies should not replace human reasoning and problem-solving abilities. Systematic literature reviews have highlighted the importance of equipping students with the necessary skills to interact with AI chatbots.

This research underscores the significant role that university lecturers play in shaping the utilization of AI chatbots as a force for good in higher education (Al-Zahrani & Alasmari, 2024). The lecturers interviewed in this study emphasised the need to incorporate ethical considerations, transparency, and the implementation of AI chatbots. They also recognised their responsibility in exploring effective ways to integrate these technologies into the curriculum, leveraging their capabilities to enhance teaching and learning while maintaining the human element in education (Mah & Gross, 2024). Additionally, the lecturers emphasised the importance of guiding student teachers in developing critical thinking and digital literacy skills to effectively navigate and utilise AI chatbots, recognising that these technologies should not replace human reasoning and problem-solving abilities.

The findings of this study align with the existing literature on the integration of AI-based technologies in higher education. Previous studies have emphasized the potential benefits of AI chatbots, such as personalised support, enhanced student engagement, and streamlined administrative tasks (Labadze et al., 2023). However, the literature also highlights the critical need to address ethical concerns, such as

algorithmic bias, privacy, and the potential displacement of human interaction in the educational sphere (Akinwalere & Ivanov, 2022).

The insights gained from this research can inform the development of policies, training programs, and educational practices that promote the ethical and responsible use of AI-based technologies in the academic setting.

#### 4. Conclusion

The findings of this study underscore the significant impact university lecturers can have in harnessing the potential of AI chatbots to drive positive advancements in higher education. The lecturers interviewed emphasised a multifaceted approach, highlighting the crucial need to incorporate ethical considerations into AI applications. They emphasised the importance of developing effective pedagogical strategies to enhance student engagement and learning through these technologies. Furthermore, the lecturers stressed their role in mentoring students to cultivate the skills necessary for navigating and critically evaluating AI technologies. This mentorship is designed to equip students with the understanding required to use AI responsibly, ensuring they are well-prepared for the future challenges of an increasingly digital world.

Informed by these insights, academic institutions can establish comprehensive policies and training programs that not only promote the ethical and responsible use of AI technologies but also foster an inclusive learning environment. By actively participating in the ethical implementation of AI chatbots, university lecturers can play a pivotal role in ensuring that these tools not only enrich the educational experience but also embody the core principles and values that underpin higher education, all while safeguarding the welfare of their student teachers.

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