

## Research Article

# Exploring the dynamics of ChatGPT: Students and lecturers' perspectives at an open distance e-learning university

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This study explores the dynamics of ChatGPT on perceptions and challenges encountered by students and lecturers in a South African open distance e-learning [ODEL] university. It investigates whether ChatGPT disrupts traditional perceptions of online distance education held by students and lecturers and identifies specific functions and features of ChatGPT that address challenges in ODeL. This article addresses a literature gap by examining the impact of AI chatbots on perceptions and challenges in online distance education. Drawing upon the community of inquiry theory, the research examines the transformative effects of ChatGPT on teaching, learning, and communication dynamics in a large enrolment module of 16,000 students. This qualitative phenomenological research design study involves evaluations, focus group discussions with first-year students, and one-on-one interviews with lecturers. Data was collected in the first semester of 2023. Participants were purposively sampled. Findings revealed that students found ChatGPT more engaging and interactive, feeling more connected to peers and lecturers. However, lecturers expressed negative attitudes towards ChatGPT. Specific functions and features of ChatGPT identified include personalised feedback and support, natural language processing for communication and comprehension, and instant access to information and resources. The study contributes to understanding the role of AI chatbots in enhancing online learning experiences and addressing challenges in ODeL.

Keywords: Artificial intelligence; AI chatbots; ChatGPT; Higher education; ODeL; Online education

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## 1. Introduction

In recent years, the field of education has undergone a transformative shift through the integration of artificial intelligence [AI] technologies, with AI chatbots emerging as a notable advancement. Among these, the Chat Generative Pre-trained Transformer [ChatGPT], developed by OpenAI, has gained prominence for its ability to generate coherent and contextually relevant responses (Dwivedi et al., 2023; Naidu & Sevnarayan, 2023; Qadir, 2022; Tung, 2023). This innovative large language model stands out for its versatility (Timothy, 2022) and capacity to provide instant, informative, and personalized assistance, thus enhancing the interactive conversational experience for students seeking knowledge and support (Assaraf, 2022; Metz & Weise, 2023; Susnjak, 2022).

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The integration of ChatGPT into educational contexts, particularly in the open distance e-learning (ODEL) contexts holds significant promise. ODeL has become a flexible and accessible form of education, catering to individuals facing constraints like geographical barriers, work commitments, or other personal circumstances (Naidoo & Kemlall, 2019). However, ODeL encounters challenges such as limited student engagement, a lack of personalised feedback, and difficulties in encouraging social connections within virtual learning environments (Sun, 2011). While existing literature primarily focuses on learning management systems [LMS] and other online platforms in ODeL (Sevnarayan, 2023a, 2023b; Sevnarayan & Maphoto, 2024), studies exploring the integration of AI chatbots are notably scarce, leaving a critical gap in understanding the transformative effects and challenges associated with this emerging technology (Naidu & Sevnarayan, 2023; van den Berg & du Plessis, 2023; van Wyk et al., 2023). Motivated by this gap, this study seeks to investigate the impact of ChatGPT on perceptions and challenges in an ODeL university context, with a particular focus on both students and lecturers. The research questions guiding this study's inquiry are as follows:

RQ 1) How does ChatGPT impact students' perceptions of engagement in the learning process?

RQ 2) What challenges do lecturers face when using ChatGPT as a teaching tool, and how do they navigate these challenges?

RQ 3) To what extent does the implementation of ChatGPT address or exacerbate existing equity and accessibility issues among students, and what strategies can be employed to mitigate potential disparities?

The significance of this study lies in its potential to contribute insights into the transformative effects of ChatGPT within ODeL. By exploring the impact on perceptions and challenges, this research aims to inform educational practitioners, policymakers, and stakeholders about the benefits, drawbacks, and strategies for the effective integration of this technology. In addition, there is a need to articulate the significance of this study for theory, policy, and practice more explicitly. This research can potentially inform and enrich the community of inquiry framework, highlighting the complexity of AI chatbot integration in the teaching and learning process. Moreover, the findings may prompt a revisitation of existing policies concerning technology integration in educational settings. Moreover, insights from this study could influence ODeL instructional design, offering practical recommendations for optimising the role of ChatGPT to enhance online learning experiences and address challenges faced by both students and lecturers in ODeL contexts. This study not only aims to answer pertinent research questions but also strives to deepen the understanding of the broader implications of ChatGPT integration in ODeL, extending its impact to theoretical, policy, and practical domains.

## 2. Literature Review

The integration of ChatGPT into educational contexts, particularly in ODeL contexts has garnered global attention for its potential to positively impact student engagement and learning processes. The literature presents a consistent narrative that reflects the multifaceted implications and challenges associated with ChatGPT implementation.

### 2.1. The Impact of ChatGPT on Student Engagement in the Learning Process

Globally conducted studies highlight the positive correlation between ChatGPT utilisation and heightened student engagement (Cotton et al., 2023; Kasneci et al., 2023). Deng and Yu (2023) demonstrated its effectiveness as a teaching assistant, resulting in increased motivation and engagement among online students. This highlights the potential for personalised feedback and assistance in the online learning context. Furthermore, studies such as Bin-Hadi et al. (2023), emphasise ChatGPT's promise in language learning, offering support and timely feedback on language usage and learning outcomes. However, amidst these positive trends, Ali et al. (2023) caution the need for guiding students to leverage ChatGPT positively, hinting at potential negative consequences. Moreover, the South African context introduces complexities, with preliminary

studies indicating potential benefits in student engagement (Naidu & Sevnarayan, 2023). Yet, challenges related to technology access and connectivity in certain regions may impede the equitable distribution of these benefits (Van Wyk et al., 2023).

Despite the existing research on ChatGPT's positive impact on student engagement, specific gaps persist in understanding its effects within ODeL contexts. Firstly, there is a lack of in-depth exploration into how ChatGPT affects various dimensions of student engagement, including cognitive, behavioural, and emotional aspects. Existing studies often provide broad strokes, and a finer-grained analysis is needed to discern the specific mechanisms through which ChatGPT influences diverse student engagement indicators. Moreover, the literature falls short in addressing potential variations in student engagement outcomes across diverse cultural and socio-economic backgrounds within ODeL. This gap is significant for understanding how ChatGPT's impact might differ among students facing varying degrees of access to resources and technological infrastructure.

## **2.2. Challenges Faced by Lecturers in Utilising ChatGPT as a Teaching Tool**

Lecturers globally encounter similar challenges when integrating ChatGPT into teaching practices. Common concerns include the need for faculty training, uncertainties about content quality, and language-related issues (Duha, 2023; Fuchs, 2023; Kasneci et al., 2023). Specific challenges in the Vietnamese context, as outlined by Thu et al. (2023), encompass language, performance, accuracy, interaction, and security. Joshi et al. (2023) highlight the inconsistency in ChatGPT's provision of accurate explanations and answers, posing implications for pedagogical approaches, assessment methods, and the role of AI in higher education institutions. In the South African context, lecturers express awareness of ChatGPT's potential positive impact on students but voice concerns regarding affordability, ethical considerations, and biases in training data (Van Wyk et al., 2023). Despite challenges, ChatGPT is perceived as transformative, encouraging innovation and development (Dwivedi et al., 2023).

While current literature outlines challenges faced by lecturers in incorporating ChatGPT, there is a notable gap in understanding the experiences and coping strategies adopted by lecturers within ODeL contexts. The specific training needs of ODeL lecturers, their transformative pedagogical approaches, and the dynamics of adapting to AI-driven tools remain insufficiently explored. Addressing these gaps is crucial for tailoring effective support mechanisms and training programs for ODeL lecturers integrating ChatGPT into their teaching practices. Moreover, existing research tends to overlook the intersectionality of challenges, especially concerning cultural and contextual factors that may influence how lecturers perceive the integration of ChatGPT. A more detailed understanding of these contextual issues is imperative to inform targeted interventions and strategies that resonate with diverse ODeL contexts.

## **2.3. Equity and Accessibility Implications of ChatGPT Implementation**

The global impact of ChatGPT on equity and accessibility emerges as a multifaceted theme, with concerns and potential benefits discussed in various studies. Khurma et al. (2023) raise questions about ChatGPT's true promotion of educational equity, emphasising the need to understand its impact fully. While the tool improves accessibility for students with disabilities and non-native English speakers (Baidoo-anu, & Owusu Ansah, 2023), the digital divide remains a persistent concern. Research consistently highlights the importance of inclusive design and equitable access initiatives to mitigate disparities and ensure ChatGPT benefits all students. In the writing process, ChatGPT facilitates researchers globally by expediting concept exploration, draft generation, and rapid information gathering (Jarrah et al., 2023; Macdonald et al., 2023; Vijayakumar, 2023). In the South African context, the implementation of ChatGPT raises unique challenges due to disparities in access and a diverse linguistic context (Naidu & Sevnarayan, 2023). Initiatives are underway to address digital equity issues and provide access to technology resources, especially in underserved areas, to promote inclusivity in ChatGPT-enhanced learning.

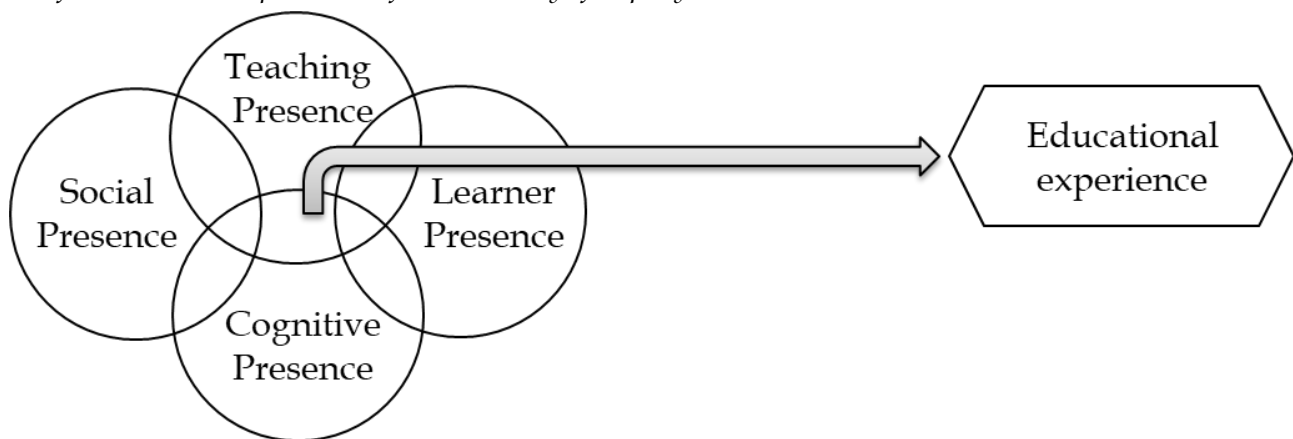
Despite acknowledging the potential of ChatGPT to address accessibility issues, the existing literature falls short in providing a critical examination of its efficacy in bridging the digital divide within ODeL contexts. The specific challenges faced by students in remote and underserved areas, including access to reliable internet and technological infrastructure, demand more detailed exploration to inform targeted interventions. Moreover, the literature lacks a comprehensive understanding of the linguistic diversity within ODeL contexts and how ChatGPT can effectively adapt to support multiple languages. Research addressing these linguistic nuances is critical to ensuring equitable access to ChatGPT-enhanced learning experiences for students from diverse linguistic backgrounds. While current research highlights the potential benefits of ChatGPT in ODeL, addressing these gaps is imperative to inform more targeted and contextually relevant strategies for both students and lecturers within these contexts.

### 3. Theoretical Framework

The community of inquiry [CoI] theory was initially proposed by Garrison et al. (2000), and later revised by Shea and Bidjerano (2012) to include 'learner presence,' which encompasses characteristics such as learning style, self-efficacy, and self-regulation, has been acknowledged for its potential to enhance learning and collaboration by integrating social, cognitive, teaching, and learner presences. Figure 1 (created by the researcher) illustrates the interconnected nature of these four presences within the CoI framework.

Figure 1

*The four interrelated presences of a community of inquiry*



Social presence plays a crucial role in enhancing students' emotional and social connections with their peers (Sevnarayan, 2023b), while 'learner presence' is influenced by students' characteristics (Chen, 2022, p. 3). Cognitive presence represents the extent to which students can construct knowledge through social interaction. Furthermore, teaching presence encompasses the design and organisation of the learning process by lecturers, which is believed to encourage learner, social, and cognitive presence (Garrison et al., 2000; Garrison & Vaughan, 2008). Therefore, teaching presence is a pivotal element in establishing a successful CoI framework, especially in an online environment.

The CoI theory offers valuable insights into students' interactions and motivation, which are particularly relevant to the study of ChatGPT's impact within the context of an ODeL university. Law et al. (2019) and Zuo et al. (2022) emphasise that social presence significantly influences online learning interaction and motivation. This framework can help elucidate how ChatGPT disrupts students and lecturers' perceptions and challenges, particularly in the context of an e-learning context, by considering the interplay of these CoI presences.

## **4. Methodology**

### **4.1. Research Approach and Design**

To explore the transformative impact of ChatGPT on perceptions and challenges within an open distance e-learning university context, this study employed a qualitative research approach, following a critical interpretive framework (Creswell & Poth, 2018; Holloway & Galvin, 2016). The research design integrated a phenomenological research design, which included evaluations, focus group discussions with first-year students, and one-on-one interviews with lecturers who teach first-year students. Data collection methods also encompassed systematic observations of interactions within the ODeL learning environment, particularly lecturers and students' perceptions of the use of ChatGPT on Microsoft Teams and Telegram messenger platforms.

### **4.2. Research Context**

The study was conducted at University X, a prominent ODeL institution in South Africa, with an annual enrollment exceeding 350,000 students. University X exclusively delivers online courses, aligning with the ODeL approach. The primary focus of the investigation was a first-year Academic Writing module, ENG321, which serves as a mandatory English home language course for a diverse student population, with approximately 16,000 students. The students mostly speak English as an additional language [EAL] and come from diverse social, cultural, linguistic, and financial backgrounds. A substantial percentage of the student cohort lacks access to data and technological devices. Most of the students work part-time and are in the age range of between 17-70. Students find the ENG321 module particularly difficult as English is not their home language, and hence, many end up repeating the module a few times.

### **4.3. Sampling Technique and Research Instruments**

The sampled students from the ENG321 Telegram messenger group. 30 students were purposively sampled through their knowledge of ChatGPT and were invited to a 1-hour Microsoft Teams session with the researcher to understand their perceptions of ChatGPT. This number of students was selected to gather rich thick descriptions and understanding of their experiences with ChatGPT and to keep in line with the qualitative nature of this study. The researcher divided the students into three groups of ten. Not all students attended the focus group discussions. In group 1, five students attended. In group 2, seven students attended and in group 3, seven students attended. In total, the researcher gathered responses from 19 student participants. Focus group discussions took place over three weeks during the first semester. Five ENG321 lecturers were invited through email to a one-on-one Microsoft Teams interview with the lecturer. All lecturer participants attended the interview. Each interview spanned about 45 minutes over two weeks.

Observations took place during semester one of 2023. It was a period when ChatGPT was new, and lecturers were frantic about its introduction. The researcher used this as an opportunity to observe lecturers and students' reactions to ChatGPT on Microsoft Teams (Lecturers) and the ENG321 Telegram messenger (students). Field notes were recorded from these platforms throughout the semester. Whenever there were discussions on these platforms about ChatGPT and its use, the researcher recorded field notes. All participants were given pseudonyms to protect their identities. Before the commencement of this study, ethical clearance was granted.

### **4.4. Data Collection and Analysis**

Data collection for this study took place during the first semester of 2023. The focus groups, involving three separate sessions with 19 student participants in total, occurred over three weeks. For the one-on-one interviews with five ENG321 lecturers, each lasting about 45 minutes, the sessions were conducted over two weeks. Observations of interactions on Microsoft Teams (for lecturers) and the ENG321 Telegram messenger (for students) were carried out throughout the first semester of 2023. The selected timeframe was intentional, capturing the initial introduction of ChatGPT when lecturers and students were still acclimating to its usage. This timeline provides

context for the data collection process, offering insights into the dynamics and reactions during the early stages of ChatGPT implementation in the ODeL context. Thematic analysis, utilizing an inductive reasoning approach as outlined by Braun and Clarke (2006), was employed to analyse the data. This approach involved the systematic identification, organization, and interpretation of patterns or themes within qualitative data, aligning with the research questions. The inductive reasoning allowed for a comprehensive exploration of participants' experiences and perspectives, leading to the emergence of themes such as exploring the influence of ChatGPT on student engagement, ChatGPT's impact on pedagogy, and considerations of equity and accessibility in education concerning ChatGPT. In line with the research questions, the following themes emerged:

- Exploring the influence of ChatGPT on student engagement in learning
- ChatGPT's impact on pedagogy: Challenges and strategies
- Equity and accessibility in education: ChatGPT's role and mitigation strategies

#### **4.5. Ethical Considerations**

Ethical considerations were central throughout the research process, particularly given the sensitive nature of academic integrity issues discussed. Informed consent was obtained from all participants, ensuring they were well-informed about the study's purpose, procedures, and potential risks and benefits. Participants were assured that their decision to participate or withdraw would not impact their university standing. To safeguard identities, pseudonyms were assigned to all participants, and during data analysis and reporting, efforts were made to depersonalize information. Strict data handling procedures were implemented, including secure storage and limited access to raw data to ensure confidentiality. Given the sensitivity of academic integrity issues, specific details in reporting were carefully handled and, if necessary, generalized to protect participant identities. Participants were explicitly assured that their involvement in the study would not result in punitive actions related to academic integrity. Ethical clearance was obtained from the institutional ethics committee before initiation, and ongoing reviews were conducted throughout the study to promptly address any emerging ethical concerns. These ethical procedures aimed to foster a secure and trustworthy environment for participants while acknowledging the sensitivities associated with the academic integrity discussions.

### **5. Findings**

#### **5.1. Exploring the Influence of ChatGPT on Student Engagement in Learning**

The exploration of ChatGPT's impact on students' learning experiences revealed a complex interplay of advantages and challenges, which culminated in thematic categories inviting a critical discourse on the implications of this AI tool for higher distance education.

##### *5.1.1. User interaction and engagement*

During the focus group discussion, most students discussed ChatGPT's ease of accessibility and its convenience. The allure of ChatGPT's 24/7 availability as a dependable study companion is undeniable. Students' claims of heightened engagement with ENG321 module materials should not be dismissed lightly. Student 1 (2023 focus group discussion), for instance, remarked, "It's like having a study buddy who's always there to answer my questions, which makes me feel more engaged with the module materials." Student 8 (2023 focus group discussion) notes "It gives me specific responses to my questions and makes everything so simple". However, it is imperative to consider whether the accessibility that ChatGPT offers might inadvertently encourage passivity. The convenience of constant assistance might lead to students relying on the tool rather than developing critical problem-solving and research skills. Student 5's (2023 focus group discussion) testimony, "It's like having a tutor, and that keeps me engaged," underlines the risk of students depending too heavily on this AI resource, potentially stunting the development of their independent learning skills.

Interestingly, ChatGPT has been found among students to be a surprising source of engagement and increased motivation, particularly in academic writing. For example, Student 9 (2023 focus group discussion) boasts “I’ve had some frustrating moments with technology in the past, but ChatGPT is surprisingly user-friendly and FREE. Our lecturers should promote its use. I am feeling very motivated to tackle this difficult module with this tool. I am not sure if it is allowed but I need it to pass.” The reported enthusiasm is promising, but we must scrutinize whether this motivation is a ‘fleeting spark’ or a ‘long-lasting’ flame. Student 2’s (2023 focus group discussion) statement, “It’s become a regular part of my study routine. I think it boosts my motivation to learn and write essays,” highlights the initial motivation sparked by ChatGPT. However, there is a risk that it could inadvertently foster dependence on external validation rather than intrinsic motivation, as Student 4 pointed out: “Sometimes, I prefer ChatGPT to my resources from lecturers because it simplifies complex topics. It’s made me more interested in academic writing.” The challenge lies in ensuring that this external motivation transforms into a self-driven passion for learning.

### *5.1.2. Learning environment dynamics*

Students felt that ChatGPT provides a non-judgemental learning environment as the AI tool does not make them feel inferior due to their cognitive, social, and linguistic abilities. According to Student 3 (2023 focus group discussion), “I like how it doesn’t judge me. It helps me feel more comfortable in online learning. It doesn’t even judge my spelling; it just gets me,” highlights the comfort of a non-threatening learning environment. Student 1 similarly mentioned “It’s so different from the classroom where you might hesitate to ask a question”. Moreover, Student 15 expressed, “I appreciate that ChatGPT doesn’t care about how many times I ask the same question. It’s patient and helpful.” This highlights the perceived patience and assistance that ChatGPT provides, creating an environment where students feel comfortable seeking clarification without fear of judgment or frustration from the AI. However, it must be noted that if students become accustomed to a non-judgmental, always-correct AI, they may be ill-prepared for real-world challenges, where errors and judgment are art and parcel of the learning experience. However, it raises concerns about whether the absence of judgment encourages resilience and the ability to handle constructive criticism. This issue, however, falls out of the scope of this article.

### *5.1.3. Pedagogical shifts and interactivity*

Students identified ChatGPT as an interactive learning experience that highlights its potential to transform passive learning into active engagement, akin to having a conversation. Student 6’s (2023 focus group interview) comment, “It has definitely made my learning more interactive and breaks everything down so well,” is indicative of the promise of an enhanced active learning experience. This is enticing, yet the risk of technology substituting authentic human interactions and personalised guidance is substantial. We must consider whether the interactivity that ChatGPT provides can replace the personalised depth and nuance of real-time discussions with lecturers and other stakeholders, as Student 7 pointed out: “It gives me a sense of having a real teacher, even in this virtual setting.” While many students laud ChatGPT for its interactive qualities, not all share the same sentiment. Student 11 (2023 focus group interview) offered a contrasting view, stating, “I don’t think it’s as interactive as people say. It’s just a machine giving information. There’s no real discussion or back-and-forth like you’d have with a lecturer or our peers.” This dissenting opinion challenges the prevailing notion that ChatGPT truly replaces or replicates the depth of human interaction in the learning process. Furthermore, Student 14 expressed, “I prefer discussing with a real person. ChatGPT feels too scripted, and it doesn’t adapt to my specific questions or learning style.” This viewpoint introduces the idea that the AI tool may lack the adaptability and responsiveness of a human teacher, potentially limiting its effectiveness in catering to individual learning preferences and needs. These divergent opinions highlight the need for a critical understanding of ChatGPT’s interactivity and its potential limitations. It

highlights that while some students find it engaging, others may not perceive it as a fully interactive substitute for human-guided learning experiences.

#### 5.1.4. *Changing perceptions of online learning*

Students noted that their perspectives on online learning have changed. This theme suggests a paradigm shift, with ChatGPT making online education more engaging. However, students' call for more guidance from lecturers, as expressed by Student 10 (2023 focus group interview), highlights the necessity of a balanced approach to technology integration, "It's more engaging than I expected, but I wish our lecturers showed us how to use it and encourage its use." Lecturers must play a crucial role in scaffolding the use of AI tools to ensure their alignment with pedagogical goals and the development of students' critical thinking skills. Student 12 (2023 focus group interview) expressed a positive shift in perspective, stating, "I used to find online learning a bit dull, but ChatGPT changed that for me. It adds an element of fun and curiosity." This viewpoint suggests that for some students, ChatGPT not only enhances engagement but also injects an enjoyable aspect into the online learning experience. On the contrary, Student 15 had a more cautious view, noting, "While ChatGPT makes things interesting, it also makes me worry if we're relying too much on technology. It's engaging, but I don't want it to replace the personal touch of our tutors and lecturers." This divergent opinion highlights concerns about the potential over-reliance on AI tools and emphasises the irreplaceable role of human lecturers in providing a personal touch to education. Student 18 offered a different perspective, stating, "I don't think it's about the tool; it's about how we use it. If lecturers guide us more on integrating ChatGPT into our learning, it could be a game-changer. I feel like they tell us to stay away from it, but they don't tell us why. There is such a thing as responsible AI use". This response aligns with the call for informed pedagogical guidance, suggesting that students acknowledge the potential benefits of ChatGPT but emphasise the importance of proper integration and guidance from lecturers. The findings from the focus group discussions with students reveal concerns about potential over-reliance, diminished intrinsic motivation, reduced resilience, passive learning, and the need for informed pedagogical guidance. It is argued that striking a balance between technology-driven assistance from ChatGPT and traditional pedagogy is essential to ensure meaningful and sustainable engagement in the learning process.

## 5.2. ChatGPT's Impact on Pedagogy: Challenges and Strategies

A critical examination of ChatGPT's impact on pedagogy in the ODeL university under study has revealed themes that demand careful consideration and proactive measures.

#### 5.2.1. *Cheating and irresponsible student use*

The testimonies of multiple lecturers reflect a pervasive issue of irresponsible student use, marked by a preference for shortcuts over genuine learning outcomes. As Lecturer 1 (2023 one-on-one interview) laments, "Our students use it irresponsibly, seeking shortcuts rather than genuine learning outcomes." This trend has dire consequences, as expressed by Lecturer 4 (2023 one-on-one interview), who draws attention to the rise of unethical academic practices such as plagiarism, stating, "The irresponsible use of AI has led to unethical academic practices, like plagiarism in our modules." Such practices have become disturbingly prevalent, and as Lecturer 5 (2023 one-on-one interview) observes, students resort to outright cheating, copying, and pasting information from ChatGPT without due diligence or critical verification. As Lecturer 5 (2023 one-on-one interview) bluntly puts it, "Thus far, we have seen students using it to cheat. These students simply copy and paste information from ChatGPT without verifying its information." Lecturer 2, however, emphasised a more proactive approach, suggesting, "Educating students about responsible AI use is crucial from the start. It's not just about catching them cheating; it's about instilling a culture of academic honesty." These perspectives from the lecturers provide a detailed understanding of the challenges posed by irresponsible student use of AI in an ODeL context. The lecturers not only



highlight instances of cheating but also express concerns about the potential impact on students' genuine learning but also emphasise the need for proactive measures to address these issues.

### 5.2.2. Monitoring and teaching responsible use

The second theme highlights the burdensome task of monitoring ChatGPT use and the necessity of teaching students responsible utilisation of this tool. Lecturer 2 (2023 one-on-one interview) mentions the time-consuming nature of closely monitoring ChatGPT, given the potential for misuse, stating, "ChatGPT can be a time-consuming tool for us because we need to monitor its use closely. I think we need to teach students about its effective use." A critical question arises: should lecturers be compelled to dedicate significant resources to monitor technology instead of focusing on achieving learning outcomes? Moreover, lecturers are now challenged to educate students on the effective and ethical use of ChatGPT. Lecturer 1 offered a distinctive perspective:

Keeping tabs on how students utilise ChatGPT is indeed a task. It demands time and resources that could be otherwise devoted to enhancing the learning experience. However, it's a necessary evil in the age of 4IR. I am very old school; I have never used ChatGPT or other AI tools for that matter. This process becomes even more difficult for someone like me.

The need for instructional efforts to inculcate responsible AI usage, as emphasised by Lecturers 2 and 1 (2023 one-on-one interview), reflects a significant shift in the lecturer's role and the evolving demands of the digital era. The acknowledgment from Lecturer 1 of being "very old school" adds a layer to the discussion, emphasising the generational gap and personal discomfort with AI tools.

### 5.2.3. Assessment design challenges

Redesigning assessments for specific modules and assignments is beset with its own set of issues. As Lecturer 3 (2023 one-on-one interview) aptly points out, this customization process presents challenges, notably the risk of students exploiting the tool to bypass assignments or assessments, noting,

Just changing questions in assessments, to avoid ChatGPT use, for specific modules can be challenging, especially when some students might exploit it and still get ChatGPT to answer their assessments. We need to be more careful with the types of questions we set for assessments. Especially because our assessments are all online.

This revelation necessitates a re-evaluation of assessment design and an imperative for more vigilant measures to maintain academic rigor. Furthermore, Lecturer 4's (2023 one-on-one interview) assertion that increased awareness about academic integrity is required suggests a pressing need for redefining educational approaches to meet the demands of a technology-driven learning environment.

In response to these critical findings, Lecturer 5 (2023 one-on-one interview) mentions active monitoring and cross-referencing of submitted work, stating, "We're addressing this issue by actively monitoring and cross-referencing submitted work." While commendable, this approach speaks to the measures needed to uphold academic standards. The question remains: should lecturers have to employ such resources and strategies merely to combat the implications of technology that, in principle, should enhance the learning experience?

## 5.3. Equity and Accessibility in Education: ChatGPT's Role and Mitigation Strategies

### 5.3.1. Observations on Telegram Messenger

The researcher made observations on the use of ChatGPT by students in the module Telegram group. Several key findings emerged. Firstly, it was noted that ChatGPT enhances accessibility by offering instant support, thus breaking down geographical and temporal barriers that can hinder students' access to learning resources. Student A (2023 Telegram exchange) mentioned, "There is no waiting, just instant support". Another student noted, "I use AI to summarise and simplify my notes for me. Guys, you should try it. It makes life so much easier" (Student B, 2023 Telegram

exchange). Moreover, the personalised responses generated by ChatGPT have proven to be particularly beneficial for students with diverse linguistic and cognitive needs, thereby enhancing equitable learning experiences. For Student C (2023 Telegram exchange), ChatGPT provided him with a way to make sense of his academic writing content at his own pace. He lamented “I have a learning disorder...don’t understand the high languages used and the notes are not easy to understand in the tutorial letters. AI is helpful to simplify content according to my needs”. Language support emerged as another significant advantage, as ChatGPT can assist students in their preferred language effectively addressing language-related accessibility challenges. According to Student D (2023 Telegram exchange), “English is not my home language. They can’t punish us for making our lives easier for us. I use it to edit my work”. In addition, observations indicated a wide range of engagement levels among students. While some students used ChatGPT as a shortcut to generate assignment responses, many students engage with it as an additional learning resource, as noted by Student E who mentioned “I hardly use Google anymore. If I have any questions about the module, I just ask ChatGPT. If I need to know how to write the thesis statement, it helps me.” This suggests the potential of ChatGPT to mitigate accessibility challenges and enhance learning outcomes.

### 5.3.2. Observations on Microsoft Teams

Findings from the Microsoft Teams chat with lecturers regarding ChatGPT usage highlight several noteworthy points. Firstly, lecturers have observed a range of student behaviours when it comes to ChatGPT usage, from responsible learning aid utilisation, “It can be used as a learning aid” (Lecturer A, 2023 Microsoft Teams exchange) to shortcuts in their assessments, “What is the university going to do about it? Students are using it to cheat!” (Lecturer B, 2023 Microsoft Teams exchange). This variation has raised questions about equitable access to educational resources for all students. Equity in assessment has become a pressing concern for lecturers, as they recognise the need for assessment methods to evolve in response to the potential for ChatGPT-related cheating. Traditional assessment as we know it needs to be adjusted to ensure fairness and academic integrity. Lecturers are actively promoting responsible ChatGPT use among students, emphasising the importance of maintaining academic integrity and equitable learning experiences. According to Lecturer C (2023 Microsoft Teams exchange), “Our role extends beyond teaching the subject matter; we must actively guide our students on responsible ChatGPT use”. Lecturer D (2023 Microsoft Teams) argued “Responsible use is key and if we don’t teach students about the pros and cons of AI use, who will?” This guidance aims to ensure that the technology is harnessed for educational enrichment rather than short-circuiting the learning process. Consequentially, there is a growing worry among lecturers regarding the disruptive potential of ChatGPT, particularly when it comes to its use in assessments. Lecturer E highlights “We’re in uncharted territory, and it raises questions about the authenticity of our assessments and accreditation of our institution.” The implications for authenticity and accreditation of the university are concerning, as the role of technology in education continues to evolve. These findings highlight the need for ongoing discussions and adaptation to approach the changing online education context with AI.

## 6. Discussion

The introduction of ChatGPT into ODeL contexts has spurred an exploration of its impact on student engagement, pedagogy, and issues of equity and accessibility. Through a critical lens, this discussion navigates the implications of ChatGPT in the ODeL context, drawing on the findings and existing literature.

### 6.1. The Influence of ChatGPT on Student Engagement in Learning

The study’s findings on the heightened accessibility and convenience of ChatGPT align with the established benefits of AI-driven chatbots (Hew et al., 2023; Mai, 2022), contributing to the increased social presence within the CoI framework (Garrison et al., 2000; Garrison & Vaughan, 2008; Zuo et al., 2022). The 24/7 availability and personalised responses of ChatGPT can

potentially bolster social interaction among students. However, the observed risk of over-reliance and passivity introduces a critical element that challenges the equilibrium between technology-driven engagement and authentic human interaction (Deng & Yu, 2023). Within the CoI framework, this raises questions about how technology influences social presence and whether it might lead to a potential imbalance.

The theme of increased student engagement resonates with existing literature highlighting ChatGPT as a motivational tool (Hew et al., 2023; Mai, 2022). However, within the CoI framework, this speaks directly to the cognitive presence, wherein the study brings forth concerns about external motivation potentially overshadowing intrinsic drive, a crucial aspect emphasised by Garrison et al. (2000). Striking a balance is imperative to ensure that ChatGPT augments rather than substitutes intrinsic motivation, aligning with the cognitive dimension of CoI.

Creating a non-judgmental learning environment through ChatGPT, echoing literature on AI-driven tools encouraging comfort (Kasneci et al., 2023), introduces a balanced perspective. This finding prompts a deeper exploration within the CoI framework, emphasising how this supportive environment might influence the cognitive and social dimensions of presence. Potential hindrance to the development of resilience and constructive criticism handling, both integral to CoI (Mai, 2022), becomes a crucial consideration.

The identified interactive learning experience theme aligns well with the positive impacts noted in previous studies (Hew et al., 2023; Kasneci et al., 2023). Integrating this into the CoI framework highlights potential shifts in social and teaching presence. This raises vital questions about how technology-driven interactivity impacts authentic human interactions and personalised guidance, highlighting the delicate balance advocated by the CoI between technology-driven engagement and human presence in ODeL (Deng & Yu, 2023).

Furthermore, the shift in students' perceptions of online learning, in alignment with the transformative potential of ChatGPT (Mai, 2022), gains deeper significance within the CoI framework. The emphasis on the necessity of more guidance from lecturers not only accentuates the CoI's teaching presence dimension but also emphasises the integral role of lecturers in ensuring a critical approach to technology integration, aligning with existing literature (Hew et al., 2023; Naidu & Sevnarayan, 2023). This emphasises the need for a synergistic interplay between human facilitation and technological assistance for effective ODeL.

## **6.2. ChatGPT's Impact on Pedagogy: Challenges and Strategies**

The exploration of ChatGPT's ramifications on pedagogy reveals multifaceted challenges, intertwining with broader ethical concerns raised in literature about the deployment of AI-driven tools in education (Fuchs, 2023; Luo et al., 2023). The documented issues of irresponsible student use and a surge in cheating resonate with ethical concerns discussed by Fuchs (2023) and Luo et al. (2023). In the CoI framework, these findings warrant a careful examination of the ethical context within the social and teaching dimensions. Ethical considerations ripple through the social fabric of collaborative learning, impacting student interactions and relationships with lecturers. As ChatGPT introduces a novel dynamic, the CoI framework becomes instrumental in dissecting and understanding the ethical considerations within the digital learning context.

Challenges related to monitoring ChatGPT usage and the necessity to instil responsible utilisation align with the changing role of lecturers in the digital era, a transformation expounded by Fuchs (2023). Framing this shift within the CoI framework accentuates the substantial evolution in the teaching presence dimension. Traditionally centred on content delivery, lecturers now grapple with actively monitoring technology, becoming mentors in guiding responsible AI use. This evolution mirrors the broader adaptability of lecturers within the CoI framework to tackle the changing technological context in education. Integrating insights from Fuchs (2023) and the CoI framework, the study confirms and deepens our understanding of lecturers' emerging roles as technology mentors.

The challenges in redesigning assessments align with broader discussions about the necessity for reassessing evaluation strategies in response to technological advancements (Luo et al., 2023). Embedding these challenges within the CoI framework prompts a critical analysis of how assessment methods intersect with the cognitive dimension. The potential misuse of ChatGPT necessitates vigilant measures to maintain academic rigor, highlighting the integration of assessment strategies with the CoI's cognitive presence. This analysis reaffirms the CoI's pivotal role in shaping not only the social and teaching aspects but also the cognitive dimensions of the learning experience (Chen, 2022; Garrison et al., 2000; Garrison & Vaughan, 2008; Zuo et al., 2022).

Lecturer 1's acknowledgment of being "very old school" introduces an added layer of complexity, which brings to the fore a generational gap and personal discomfort with AI tools. This sentiment resonates with literature discussing resistance to technological integration (Naidu & Sevnarayan, 2023). Within the CoI framework, this adds a socio-cultural dimension to teaching presence, emphasising the need for a collaborative understanding between lecturers of different generations.

Lecturer 5's mention of active monitoring and cross-referencing of submitted work as a strategy to combat ChatGPT-related issues aligns with broader discussions on strategies to uphold academic integrity (Eke, 2023). While commendable, such strategies highlight the extent to which lecturers must go to maintain traditional academic standards in the face of technological disruption. This raises critical questions about the ongoing debate regarding the need for more robust technological solutions or a fundamental shift in assessment paradigms.

Drawing on insights from Dwivedi et al. (2023), Mai (2022), and Hew et al. (2023) about the potential benefits of technology-enhanced learning, it becomes imperative to balance the advantages and challenges posed by AI tools like ChatGPT within the CoI framework. While technology can enhance accessibility and engagement, responsible use and pedagogical integration become essential considerations.

### **6.3. Equity and Accessibility in Education: ChatGPT's Role and Mitigation Strategies**

While the observations from students and lecturers align with existing literature regarding ChatGPT's positive impact on accessibility and language-related challenges, some nuances contribute to a deeper understanding. Kasneci et al. (2023) emphasise the potential of AI tools to enhance accessibility, and this study's findings substantiate this claim within the context of an ODeL university. The breakdown of geographical and temporal barriers, as facilitated by ChatGPT, is particularly significant within the CoI framework, emphasising how it influences the social and teaching presence dimensions. The instantaneous support provided by ChatGPT echoes the CoI's emphasis on creating a supportive and responsive learning environment.

However, the study also introduces a critical perspective within the CoI framework. The potential misuse of ChatGPT as a shortcut raises questions about equitable access. Deng and Yu (2023), and Joshi et al. (2023) caution against over-reliance on technology, and the findings here amplify this concern. This resonates with the CoI's emphasis on maintaining a balance between technology-driven engagement and authentic human interaction. The tension between the advantages of accessibility and the challenge of potential misuse adds complexity to the literature, highlighting the need for a nuanced approach within the CoI framework.

Moreover, lecturers' active promotion of responsible ChatGPT use among students aligns with broader discussions in the literature about the ethical use of AI tools (Hew et al., 2023). Within the CoI framework, this emphasises the pivotal role of lecturers in shaping the teaching presence dimension. The CoI framework highlights the changing role of lecturers, moving beyond content delivery to actively guiding technology use. This adaptation is crucial in the digital era, as acknowledged by Hew et al. (2023), and it becomes especially pertinent in ODeL contexts.

## 7. Conclusion

In addressing the research questions posed, this study provides insights into the influence of ChatGPT on student engagement, pedagogy, and equity within a South African ODeL university. Findings indicate that ChatGPT enhances student engagement through accessibility and personalised responses but introduces the risk of over-reliance, challenging the balance between technology-driven and human interaction within the CoI framework. The study reported pedagogical challenges, including ethical concerns and the evolving role of lecturers as technology mentors, emphasising the CoI's role in shaping the learning experience. The findings further highlight ChatGPT's positive impact on accessibility but raise concerns about potential misuse, emphasising the need for a balanced approach within the CoI framework and the pivotal role of lecturers in guiding responsible AI use. The multifaceted insights from the discussion section contribute to a more comprehensive understanding of the implications of ChatGPT in education. Issues such as the transformative nature of student-teacher dynamics and the potential impact on collaborative learning are crucial considerations.

## 8. Limitations

While this article provides insights into the impact of ChatGPT on pedagogy in an ODeL university, it has certain limitations. First, the study's focus on a specific university may limit the generalisability of findings to a broader context. In addition, the perspectives gathered primarily come from first-year students and lecturers, and a more comprehensive understanding could be achieved by including diverse stakeholder viewpoints, such as administrators, external markers, and tutors. Furthermore, the article does not extensively explore potential variations in ChatGPT usage across different academic disciplines or student demographics, which could offer a more critical analysis. These limitations highlight areas for future research and the need for a more comprehensive exploration of ChatGPT's impact on distance education.

## 9. Recommendations

Based on the study's findings, it is recommended that the responsible integration of ChatGPT as a supplementary tool to encourage critical thinking among students. This may include the implementation of a collaborative AI literacy program for both students and lecturers, encouraging a shared understanding of responsible and effective AI usage. Digital literacy training for lecturers is essential, alongside clear policy guidelines from institutions for AI tool integration and the exploration of innovative assessment methods. Institutions could establish interdisciplinary teams, consisting of lecturers, educational technologists, and ethicists, to continuously evaluate and update AI integration policies, ensuring adaptability to evolving ethical standards and technological advancements. To address the technological generational gap, ongoing discussions, and training sessions for lecturers are crucial. Practical mentorship programs are needed where there is the pairing of tech-savvy lecturers with those less familiar with AI tools that could facilitate knowledge exchange. Institutions might consider creating AI oversight committees, involving students in decision-making processes to ensure a diverse perspective on tool implementation. Future research should explore the ethical implications of AI tools in collaborative learning and potential pedagogical shifts. Strategies should be devised to mitigate AI tool misuse, ensuring equitable access. Finally, creating a culture of continuous reflection and adaptation within the educational community can promote agility in responding to emerging challenges and opportunities presented by AI in education. This study not only validates existing literature but introduces critical considerations within the CoI framework and provides insights for stakeholders and advancing our understanding of AI in education.

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