Why All the Hype about ChatGPT? Academics' Views of a Chat-based Conversational Learning Strategy at an Open Distance e-Learning Institution

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RESEARCH ARTICLE

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ABSTRACT

The launch of ChatGPT has been revolutionary. This AI chatbot can produce conversations which are indistinguishable from that of humans. This exploratory qualitative study is foregrounded in a constructivist-interpretative perspective. The principal objective of this paper is to explore the views of academics on ChatGPT as an AI-based learning strategy at an open distance e-learning (ODeL) institution of higher education. Thirteen academics, who were enrolled as study participants, posted their views of ChatGPT as an AI-based learning strategy on a Teams chat at an institution of higher learning. The results support a few research studies on ChatGPT. The academics recognized the benefits and risks of using ChatGPT for teaching and learning. Further investigations are recommended to explore similar studies in higher education spaces and specifications.

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INTRODUCTION

ChatGPT, OpenAI's large language model (LLM) chatbot, was the first of its kind to produce conversations indistinguishable from that of humans. This was quickly followed by Google Bard and Microsoft Bing. With increasingly sophisticated computerized platforms producing more humanlike results, researchers in many disciplines are debating the role of AI-LLM chatbots in increasing epistemology and rigorous scientific research activities. This hype has spilt over to and has seriously impacted teaching and learning spaces, especially in higher education. ChatGPT garnered one million users within five days of its release due to its disruptive nature. Although a powerful chatbot, ChatGPT was free and easily accessible to the general public in multiple languages. Dwivedi et al. (2023, p. 4) labelled the functionality of ChatGPT as "ask me anything, and I may have a good answer." The hype and excitement to use ChatGPT, as well as the new subscription version, ChatGPT-4, has significantly impacted academia within a short period since its release in November 2022. This chatbot continues to make waves worldwide regarding research and educational practice.

Moreover, ChatGPT is a sophisticated artificial intelligence (AI) model chatbot that can generate conversational responses to user text prompts in a way indistinguishable from a human user. ChatGPT uses natural language processing (NLP) to interact realistically with users, has a more extensive data set as training data, and is more fine-tuning with enhanced capabilities (Tlili et al., 2023). Dwivedi et al. (2023) indicated that ChatGPT has around 45 terabytes of text data and can perform specific tasks such as preparing slides in a particular style, generating high-resolution images, online gaming commentary, etc. The potential impact of ChatGPT has sparked many discussions on how it can augment or transform education.

The trend of educators exploring ways AI algorithms or tools can augment teaching is familiar. Bozkurt et al. (2023) stated that educators in the past had used AI tools to enhance and extend familiar pedagogical approaches, support collaborative learning, model approaches, and provide visualization. In this regard, Cope et al. (2021) pointed out that by employing an AI-enabled assessment strategy, customized or adaptive learning pathways can be created to cater for student's individual needs. This, the authors assert can help track students' progress and enhance their learning experiences. Research reported that AI-powered chatbots were utilized for research purposes, such as conducting conversational surveys (Xiao et al., 2020). As an AI-powered chatbot, ChatGPT, within a few months of its release, has been used for manuscript preparation, developing games, clinical decision-making, writing exams, poetry, lyrics of songs and academic essays, and assessment purposes (Bozkurt et al., 2023; Cotton et al., 2023; Dwivedi et al., 2023; Kung et al., 2023; Rudolph et al., 2023). The application of ChatGPT in different sectors is still in its infancy, with many scholars expressing concerns about its use (Bozkurt et al., 2023; Cotton et al., 2023; Tlili et al., 2023). Specifically, Dwivedi et al. (2023) call for a transparent pedagogical approach and strategy within the education system, and Tlili et al. (2023) call for a new teaching philosophy. Given the above, there is an obvious need to investigate ChatGPT as an AI conversational learning tool in higher education.

Despite the hype around ChatGPT, studies have reported results mostly in relation to the fields of medicine, science, agriculture, business management, and information and communication technology (ICT) conducted in contact and blended learning environments but to a lesser extent for open distance e-leaning contexts. Besides, only very few studies have investigated ChatGPT as an AI chat-based conversational tool in open education and distance learning (Bozkurt et al., 2023; Cotton et al., 2023; Firat, 2023; Halaweh, 2023; Kılınç, 2023; Naidu & Sevnaran, 2023; Tlili et al., 2023). But recently, ChatGPT was applied in distance education, and is seen to have immense potential to facilitate teaching, learning, and engage scholarship. Recent distance education studies have reported online assessment (Naidu & Sevnaran, 2023), academic dishonesty (Halaweh, 2023); engineering education (Qadir, 2023); self-directive learning (Firat, 2023); foreign language (Hong, 2023); and science education (Kılınç, 2023). Although extensive research has been carried out on ChatGPT as an AI-LLM chatbox, studies have not dealt with academic awareness at an open distance e-learning (ODeL) contexts. Consequently, the excitement and concern of ChatGPT prompted the authors to explore this phenomenon at an ODeL institution. This paper explores the views of academics on ChatGPT as an AI-based learning strategy at an ODeL institution of higher learning in answering the questions:

- What are the views of academics of ChatGPT as one of the artificial intelligence tools in teaching and learning at an ODeL institution?
- What do the academics perceive as the benefits and drawbacks of a ChatGPT as a conversational-based learning approach in teaching and learning at an ODeL institution?
- How did the academics perceive the usefulness and functionality of ChatGPT for teaching and learning at an ODeL institution?

LITERATURE REVIEW

TECHNO-TRENDS AWARENESS THEORY

Pandey et al. (2021) define technology trend awareness (TTA-theory) as "the skill of an individual to be aware and mindful of new and popular technology that has been gaining widespread acceptance across concerned industries or markets" (p. 2). This view implies that a person has acquired digital literacy knowledge and skills, an awareness of how digital platforms or devices work or artificial intelligence tools operate as a critical 21st-century skill, and a sense of experience in effectively using the basics of technologies. Several scholars have underscored the awareness of new technologies to foster positive attitudes among users toward the rapid adoption of technology (Dinev & Hu, 2007; Pandey et al., 2021). In addition, Carpenter et al. (2022) reveal that teacher educators must be aware of innovative technologies to implement innovative pedagogies in their classrooms.

In employing the TTA-theory, we are mindful that the use of a particular technology by individuals does not just happen; instead, individuals need knowledge of the existence of such a technology. Such knowledge could be galvanized through recommendations from a cohort of peers who have acquired knowledge and used such new technologies. Rogers (2003) calls for such a cohort of users, innovators, or early adopters. According to Rahimah et al. (2018), individuals could portray trend awareness in terms of their abilities to recognize and understand the existence, utilities, and benefits of new technology and their impact on the success of one's business. To effectively use such technologies, individuals must be knowledgeable of the existence of the technology and what it can be used for. As noted by Reffat (2003), no matter how innovative a particular technology is, individuals need to have knowledge or awareness of it to benefit from or optimize their usage.

Indeed, technology has proven valuable and transformative in industry and education. The advancements in technology continue to facilitate the improvement of the quality of life of people as it helps minimize stressful situations and enhance efficiency. However, Wu, et al. (2013) assert that the acceptance of any new technology by a target audience will only be possible when the target audience is aware of the new technology to at least an adequate level. Such awareness helps to build the confidence of users of the new technology. Besides, people with a good level of technology trend awareness will likely reduce adverse conditions created by negative situations like the Covid-19 pandemic (Pandey et al. 2021) and other emergencies. Hendricksen (2014) touts the potential of technology trend awareness to enhance the visibility of products and services. In the same way, actors in the educational sector could leverage new technology, such as ChatGPT, for innovative educational environments to benefit their students and faculty.

Though the literature on the TTA-theory is relatively scanty, given its fecundity in the understanding and appreciation of new technologies, we deem it an adequate theory to foreground the current study. In sum, it will be helpful to explore the academics' views on ChatGPT as an AI-based learning strategy.

CHATGPT AS AN AI CONVERSATIONAL-BASED LEARNING TOOL

The advent of new AI technologies based on deep and machine learning models, such as ChatGPT, often arouses strong emotions ranging from doomsday predictions to high enthusiasm (Rudolph et al., 2023). AI tools have become more pervasive in the education industry, with many scholars debating whether AI makes humans more efficient (Bozkurt et al., 2023; Khosravi et al., 2022). As a result, there has been a substantial public discourse on the implications of ChatGPT for education since its launch by OpenAI in November 2022. Researchers

have tried exploring the negative and positive implications of ChatGPT in revolutionizing the educational landscape (Bozkurt et al., 2023). AI tools have provided personalized learning for different kinds of learners (Chen et al., 2020; Guan et al., 2020; Khosravi et al., 2022), monitor students' progress for assessment purposes (Chen et al., 2020; Guan et al., 2020; Khan et al., 2021; Cooper, 2023), predict student outcomes and enhance learning experiences (Bozkurt et al., 2023; Guan et al., 2020; Khosravi et al., 2022). Generative AI systems such as ChatGPT may hold the flame to improve teaching, learning, and research. In this section, we discuss some of the practical applications of ChatGPT in education.

Firstly, ChatGPT augments teaching practices by serving as a pedagogical tool. For example, ChatGPT can be used by teachers for assessment purposes by helping to monitor student learning and progress (Cotton et al., 2023). Cotton et al. expound that ChatGPT can be used to create personalized assessments, such as the generation of customized quizzes and exams for students based on their abilities and needs. Teachers who want to make a demonstration, explain or have students apply a concept can do so through the help of ChatGPT (Haleem et al., 2022). For instance, teachers can make students develop essays on their own and generate one from ChatGPT. After which they can compare the two essays while the teacher questions the students to ascertain their thinking processes. Dwivedi et al. (2023) argue that such comparisons are useful in helping students identify the strengths and weaknesses of essays for further exploration. Haleem et al. (2022) add that ChatGPT can help teachers teach the basics of a subject while providing forums for students to get further clarification. In sum, Tlili et al. (2023) agree that ChatGPT can help teachers prepare their teaching materials and prepare quizzes for their students and promote learning practices.

Regarding students' learning, ChatGPT provides a platform for asynchronous communication that promotes student engagement and collaboration (Cotton et al., 2023). This feature of ChatGPT enables students to ask questions and engage in discussions on varied topics without being present at the same time. The authors expound that ChatGPT facilitates student engagement and collaboration through chat APIs (application programming interfaces), which can create student groups, thereby creating opportunities for students to work together on projects and assignments. At the same time, chat APIs are enablers of remote learning. This learning modality is helpful for those unable to attend classes due to circumstances beyond their control. ChatGPT can also provide immediate feedback to students, engage them in fun games and provide recommendations for educational resources such as books, libraries, and websites. In a study by Kasneci et al. (2023), ChatGPT was shown to assist elementary school students in the development of reading and writing skills, generate practice quizzes and problems that help middle and high school students to understand and retain what they are learning, help university students in writing tasks and research and provide opportunities for learners with disabilities.

Recent studies on ChatGPT have underlined it as an effective AI tool that can be beneficial for generating research papers (Eysenbach, 2023; Lecler et al., 2023; D'Agostino 2023; van Dis et al., 2023). Leclerc et al. (2023) mention that ChatGPT can assist radiologists in numerous ways, such as the organization of a research article by suggesting a logical structure and flow of content, enhancing the language style of a research paper by suggesting appropriate grammar, vocabulary, and sentence structure, and help in the formatting of a research paper by providing references, citation, and other required information. Thus, ChatGPT can aid learners in the radiology field in composing well-written and accurate research papers without their extensive research writing experience. Eysenbach (2023) affirmed that ChatGPT could provide summaries of medical research papers, thereby saving medical students time and helping them stay up to date with the latest study in the field. Van Dis et al. (2023) also revealed that researchers and others had applied ChatGPT to draft and improve papers, summarise the literature, write essays and talks, perform statistical analysis, and identify research gaps. Van Dis and his colleagues believe that although conversational AI such as ChatGPT would eventually revolutionize research practices and publishing, such as increasing the diversity of scientific research papers, there are ethical concerns about its use.

At the same time, there are practical concerns, limitations and educational dangers regarding its use. For example, Vaishya et al. (2023) reported that ChatGPT has limitations, such as limited specialized medical knowledge, the potential to be biased based on its data training and might be inappropriate for conceptual learning. Tlili et al. (2023) also found that ChatGPT

has several limitations regarding its accuracy, honesty and truthfulness, personality and the potency to promote cheating. The authors called for a new teaching philosophy that includes educators, teachers and students who need to upskill their competencies so they can optimise the chatbot. Kasneci et al. (2023) also believe that LLM, such as ChatGPT, demands users (teachers and students) to develop competencies and literacies to understand the technology to use it effectively. The researchers agreed with prior studies that revealed that ChatGPT has the potential to be biased and called for the need to develop a straightforward pedagogical approach and strategy within the education system with a keen focus on fact-checking outputs from ChatGPT. The literature cited pointed to the fact that there is no point to impede the use of ChatGPT due to its positive effects on educational practice (Dwivedi et al., 2023; Tlili et al., 2023). However, to effectively integrate AI conversational tools for praxis and in pedagogical practices, Dwivedi et al. (2023) urged educators to create tasks where students who are unable to access ChatGPT can still complete tasks and not be impeded from such undertakings due to accessibility challenges.

METHODOLOGICAL CONSIDERATIONS

One of Africa's oldest distance education institutions approved a 2030 Revised Research and Innovation strategy focusing on ten niche areas. The strategic plan for the institution's operations from 2023 to 2025 highlights four catalytic niche areas: Fourth Industrial Revolution (4IR) and Digitalisation, Online Student Support, Health Studies, and Bosadi-Feminism Theorisation. One of the authors of this study is based at an open distance e-learning university and contributed to several AI-ChatGPT panel discussions and webinars organised by the university's *Institute for Open and Distance Learning*. The webinars highlighted the benefits of ChatGPT and AI Content-Detector for one of the institution's niche areas, namely 4IR and Digitalisation.

In this study, the researchers applied an exploratory qualitative design (Van Wyk & Taole, 2015) foregrounded within the constructivist-interpretative perspective (Oh & Reeves, 2010; Moalusi, 2020). Since the hype about ChatGPT emerged in November 2022, the college had organised several AI-ChatGPT webinars and participants in this study, used the chatbox on Microsoft Teams to post their responses. These academics could post comments on the chat of Microsoft Teams. All participants and delegates gave consent by attending the Teams session, which was recorded. The sample participants (n = 13) who responded to our chat questions on Teams were coded as Lecturer 1; Lecturer 2; Lecturer 3; Senior Associate Professor 3; Professor 1; Chair of Department 1; Manager for Teaching and Learning 1; and School Director 1 for anonymity and personal reasons and to comply with ethical protocols. The online Teams chat was used to post views of questions asked by participants who attended the webinars on AI and ChatGPT. The chats were copied from the Teams chat postings, which were analyzed for this study. Member checking was done a week after posted extracts were downloaded and themes identified; it was sent to the participants to verify whether they were accurate reflections of what they posted. The participants signed the corrected versions of their posts and e-mailed them to the first author. The data sets (extracts of chats) were manually copied from the Microsoft Teams chat space. The downloaded chats were pasted on a clean Microsoft Word document, coded with colors according to the code for each participant to manage the data analysis. After that, for each webinar, the recorded Teams versions were downloaded, the specific questions asked during the webinars were verified with the computerized version of Teams, extracts generated for correctness were compared, and any changes were corrected manually. All Teams recordings, Teams transcripts, and verified extracts and questions posted by participants were sent by an online link to participants to verify the correctness. After a week, if participants agreed, an e-mail was sent to the study's first author. The extracts were analyzed, and themes and sub-themes were identified as guided by the thematic analysis process (Creswell, 2012; Nowell, Norris, White & Moules, 2017). Before the study began, ethical clearance was granted (reference 2020/08/12/90178912/19/AM).

FINDINGS

After analysing the posted chatbox responses, three major themes emerged from the chat posting: awareness of ChatGPT as an AI conventional-based learning tool, benefits and drawbacks of ChatGPT as a conventional-based learning approach, and ChatGPT as a tool for

enhancing student learning. The second and third themes produced two sub-themes each. The themes and sub-themes are presented in the following and extensively discussed in the next session.

AWARENESS OF CHATGPT AS AN AI CONVENTIONAL-BASED LEARNING TOOL

Most delegates and lecturers who attended and participated in the webinars were aware of AI tools and the ChatGPT app. They have digital literacy knowledge and skills and they know how digital platforms such as ChatGPT and Google Bard operate. While some mentioned that they are upmarket devices, one participant said she was busy reading and writing an article on artificial intelligence tools. Interestingly, all participants expressed that they have the digital literacy skills to operate 21st-century AI tools such as ChatGPT.

A participant echoed the sentiment:

> *Since this year, I have attended two webinars on artificial intelligence, ChatGPT. It is a generated pre-trained transformer. One speaker mentioned that these tools could be of value to education, but it is not search engine. It is a language app (**Lecturer 1**).*

A professor highlighted the hype and excitement since ChatGPT was launched globally. He stated:

> *Since the hype in November 2022, ChatGPT has been a language model that could be valuable to lecturers and students. This app was developed by OpenAI in Silicon Valley, USA (**Professor 1**).*

This lecturer is knowledgeable about the types of AI-conventional tools available; he noted:

> *Currently, the most talked about is the ChatGPT as one of the many other robots or machines categorized under AI apps. There is a new version of ChatGPT4 (**School Director**).*

However, one participant is weary of having sufficient knowledge of this AI-conversational tool and needs more knowledge and skills before using ChatGPT. She wrote *I am reading an article on ChatGPT. It is about the value of teaching, but until I am sure, I will not experiment with it (**Lecturer 3**).*

BENEFITS AND DRAWBACKS OF A CHATGPT AS A CONVERSATIONAL-BASED LEARNING APPROACH

All participants recognized the advantages and disadvantages of ChatGPT and other versions of AI-conversational models on the market. Currently, the excitement and application of ChatGPT in teaching, learning, and research have changed how education is delivered. There are also the drawbacks, such as cost implications and the launch of the revised version, ChatGPT-4, with a subscription of US$42 per month. Furthermore, participants raised issues of academic dishonesty and anticipated academic cheating and unethical practices by students and lecturers. Another issue of concern was the propensity of ChatGPT to destroy students' creativity and problem-solving skills.

- **Benefits:** Technology trend awareness benefits innovators and early adopters as they are usually the first to reap the benefits of new technologies. This comes with some benefits, as technologies can relieve humans of a chunk of their workload due to their ability to perform with high precision and speed. This is evidenced in the study as participants mention the hype of excitement, critical and rigorous conversations, and exploration of pedagogical advances triggered by the emergence of the ChatGPT app. For instance, a participant noted,

  *Since the launch, I have used ChatGPT for teaching as a valuable tool. It supports me in setting more high-order-thinking questions [sic]. In addition, it helps with selecting specific topics for active student engagement. For sure, I am excited about the new version of GPT-4. The new version seems more accessible, provides quicker responses, and narrows specific detailed searches on topics (**Lecturer 2**).*

> *There have been so much hype and excitement since the release of the app. Everyone wants to use it. More critical conversations are hosted on different LMS platforms [sic], from webinars and face-to-face active participants. Lively critical conversations about ChatGPT were the most pronounced AI tool that had changed and impacted higher education significantly (**Professor 1**).*

It is interesting to note how large educational setups have embraced ChatGPT and touted its benefits. This has increased the awareness of the app among those in the educational ecosystem.

> *I attended a ChatGPT webinar hosted by EDEN Digital Learning Europe. The EDEN panel highlighted and reported significantly increased global awareness among the academic community (**Lecturer 1**).*

From a participant's perspective, ChatGPT will likely be the final evolution of educational delivery and the future of education. Here is what the participant shared,

> *ChatGPT has impacted and changed academia for good. ChatGPT is a writing, as well as a teaching tool that will ultimately change our pedagogical constructs. That is for sure. Undoubtedly, the future is bright; more advanced chatbots will be developed. This will help advance research, teaching, and student support (**Senior Lecturer 1**).*

- **Drawbacks:** Despite the increasing promises and benefits of ChatGPT, it comes with challenges that the study participants associated with cost implications, ethical considerations, and academic dishonesty. On the issue of cost, a participant commented,

> *Last week in a magazine, a new version of ChatGPT was released with a cost. The new version can be purchased at a $42 monthly subscription. This is very expensive for most of our students. Suddenly, OpenAI, as a company, is smiling to the bank. These companies are only for profit-making (**Lecturer 2**).*

Among students from low socio-economic backgrounds, those domiciled in rural areas are more challenged (Amponsah, 2021). This came up as a concern as a participant reflected,

> *Most rural students need more money to afford it. Can poor and needy students from disadvantaged backgrounds afford this new subscription? This will have severe implications for many "disadvantaged" students, particularly those from poor rural communities (**Manager for Teaching and Learning 1**).*

Aside from the issue of cost, the app has failed to generate context-specific information, as lamented by a participant,

> *Since last year's launch, I have registered on the "free" version of the ChatGPT app. I tried several questions which included "context," but the app could not generate any valid responses. I was disappointed. The chatbot asked me for more details about a specific context. This is a significant disadvantage of this language transformer model (**Professor 1**).*

The last challenge with the chatbot relates to the sidelining of academic integrity, which amounts to unethical behavior.

> *I was left with more questions than answers about this app. This goes against my ethical and collective responsibility. I am perturbed about how easily students "cheat" with the ChatGPT app. A significant worry is an ethical factor, Turnitin nor iThenticate could flag any "academic cheating nor plagiarism" (**Professor 2**).*

CHATGPT AS A VALUABLE AND FUNCTIONAL TOOL FOR ENHANCING STUDENT LEARNING

Many asked questions and posted on the Teams chatbox for delegates who participated in the webinars. The respondents responded to most of the posted questions in the Teams chat. Also, some of the participants in this study posted specific questions related to the usefulness and functionality of ChatGPT for teaching and learning.

- **The usefulness of ChatGPT as an AI-based learning tool**

  Most participants agreed that ChatGPT is an effective tool that can perform specific. For example, any topic can be used conversationally to generate possible types of questions and possible model answers. This participant wrote about the speedy response of the chat: *I posted three specific questions about my new topic for one of my students' research proposals. Within 10 minutes, it generated a ready-made research proposal with a brief literature review, research questions, the design and methodology, and results* (***Professor 2***).

- **The functionality of ChatGPT as an AI-based learning tool**

  Some participants alluded to webinars that helped them to use the app. Several postings by participants indicated why lecturers and students would benefit from ChatGPT. This participant mentioned that *I attended three webinars on ChatGPT and other available AI tools. I learned how the app allows us to explore more with these chatbots for teaching, learning, research, and professional development. Every week, LinkedIn Learning posts several conversations and talks about the impact of ChatGPT on human activity* (***Associate Professor 1***).

DISCUSSION OF FINDINGS

Recent studies were reported for teacher education in higher education; therefore, further research is needed to advance this phenomenon. In addition, the researchers explored the views of academics' awareness of ChatGPT as an AI-based learning strategy at an ODeL institution of higher learning. A similar quantitative study by Ali et al. (2023) reported that ChatGPT improved the academic writing ability of students in English studies. Academics' views on artificial intelligence tools, including ChatGPT, in teaching and learning in higher education are reported. Most participants are aware and acknowledge that they were exposed, and some use the AI-chat-based conversational app. Participants reflected, "*ChatGPT had impacted and changed academia for good. ChatGPT writing, as well as a teaching tool, will ultimately change our pedagogical constructs"(Senior Lecturer 2)*. Similarly, Halaweh (2023) concurs that ChatGPT has the potential to change and impact education dramatically. Participants mentioned that ChatGPT and Google Bar are operating language transformer tools that can be applied in academic writing or critical conversations. Some search, read and write articles on artificial intelligence tools. Though the Covid-19 pandemic exacerbated the incorporation of technology to continue with educational provision (Amponsah, 2021), the introduction of ChatGPT has taken over the development and provision of education in the entire content development, teaching, assessment, and research spectrum. This development has been described by Stokel-Walker and Van Noorden (2023) as a game-changer in the field of education. It, therefore, comes with little surprise that all participants in this study showed awareness of the technology in question. The majority of participants agreed that they were aware of the ChatGPT. This professor posted in the Teams chatbox that *currently, globally, the most talked about is ChatGPT as one of the many other robots or machines categorized under AI apps (Professor 1)*. This awareness could be associated with the ease with which one can access it and the free subscription provided by Open AI Company on its launch in November 2022 (Tlili et al., 2023). It also highlights the pervasive nature of AI tools, including ChatGPT, as described by Bozkurt et. (2023) and Khosravi et al. (2022).

Though participants generally showed high levels of awareness of ChatGPT, a lecturer expressed a low level of knowledge. The participant thus resorted to reading to enhance her knowledge about the phenomenon. This participant posted her view on the Teams chatbox as *ChatGPT has positively impacted and changed academia. ChatGPT writing, as well as a teaching tool, will ultimately change our praxis and innovative pedagogical constructs (Professor 1)*. This aligns with the techno-trends awareness theory that teachers must be aware of innovative technologies to implement innovative classrooms (Dinev & Hu, 2007; Pandey et al., 2021; AlAfnan et al., 2023). Without a doubt, ChatGPT, like many other forms of technology, brings benefits, as witnessed during the Covid-19 impelled lockdowns in the first quarter of 2020. The only means of perpetuating education was through the adoption of technology. The value of ChatGPT in education must be considered, as well as how it promotes critical and rigorous conversations and the pedagogical advances it presents. In the words of Reffat (2003), technological awareness enables individuals to be innovative. In this light, the study found

that the participants utilized ChatGPT to innovate mundane activities such as setting higher-order questions and creating more lively and critical conversations about the prospects and drawbacks of the AI-conversational model. These are signs of how the app is revolutionizing delivery of education and it is touted as the future of education. This corroborates an assertion by earlier researchers that technology awareness could foster positive attitudes, which can culminate in its rapid adoption (Dinev & Hu, 2007; Pandey et al., 2021; Lund et al., 2023).

Despite the benefits presented by ChatGPT, the study identified key challenges that come with it. First is the cost implication, especially for students based in rural settings. During the Covid-19 lockdowns, Amponsah (2021) documented the extent of poverty among some university students' households, which caused them to be excluded from online learning due to their inability to procure data and access digital technologies. A lecturer posted a message about affordability and cost implications for students: *The new version can be purchased at a $42 monthly subscription. This is very expensive for most of our students (Lecturer 2)*. With a subscription of US$42 per month, it is guaranteed that many faculty and students from low socio-economic backgrounds cannot benefit fully from this innovative app. Issues of context and ethics also came out strongly. This proves the biased nature of ChatGPT's training and other challenges relating to its propensity to promote cheating, dishonesty, deficiencies in its accuracy, and so forth (Tlili et al., 2023; Vaishya et al., 2023). Such sentiments arouse aversions towards such innovations and need to be resolved for the practical application of the app. Working around the challenges will prevent what Rudolph et al. (2023) term doomsday predictions about this revolutionary AI system. Last, an analysis of the field data revealed that the usefulness and functionality of ChatGPT are unquestionable. Responses from participants showed their amazement with the speed with which the application can deliver results. Furthermore, it was clear that besides teaching and learning benefits, it also enabled professional development. Participants indicated how webinars and posts from professional networks had broadened their understanding of the phenomenon. These findings resonate with Pandey et al.'s. (2021) definition of technology trend awareness as the individual's skill to be aware and mindful of new and popular technologies. This was exhibited by all participants in their posts. Similarly, it reflects the participants' abilities to recognize and understand the app's existence, utilities, and benefits, which resonates with an earlier study carried out by Rahimah et al. (2018).

CONCLUSION, IMPLICATIONS, RECOMMENDATIONS

With the rapid development of advanced chatbots in this intelligent era, there are debates about their potential use to invigorate teaching and learning activities in higher education institutions, ranging from their benefits to educational dangers. This research has presented an overview of how academics perceive using AI-powered conversational agents (chatbots), like ChatGPT, as learning tools in higher education. A qualitative approach was used to comprehensively present and discuss the issues that emerged from the study. The researchers discovered that more effort is needed to examine the awareness of academics on AI conversational tools, including ChatGPT. Past studies on the subject mainly adopted a quantitative methodology using a document analysis technique.

First, drawing from the findings of this study, the researchers recommend future studies to examine the methodological rigour of studies on AI-based conversational agents in education. More rigorous approaches such a mixed methods design to investigating AI tools in teacher education are needed for an ODeL context. Sophisticated designs such as a mixed-methods study might be needed for a comprehensive outlook of AI conversational agents as learning tools. Additionally, a more qualitative voice on the ongoing discussions of AI-conversational agents as learning tools can help to identify contextual issues regarding their application in higher education institutions.

The researchers acknowledged the potential of AI tools such as ChatGPT in transforming education. As matter of urgency, institutional tuition, academic integrity and assessment policies must be revised and provide guidelines on ChatGPT, future AI-chatbot and detector tools. An example is its ability to equip, advocate, help and support students and academics detecting language learning, plagiarism, and academic cheating. Academics were generally aware of AI conversational agents and their application in education. Inspired by the powerful

functionalities of AI tools such as ChatGPT, some academics in the study have already deployed the tools in their research report writing and as learning strategies. For example, a participant revealed that ChatGPT helped formulate higher-order-thinking questions for students. Another mentioned how it could aid in professional development programmes. This implies that teachers might save time drafting questions for their students, and educators can easily organize different professional development programmes for faculty and staff.

It is evident that among the AI-based conversational tools, academics are highly enthusiastic about ChatGPT and are experimenting with its features in different learning scenarios. Nonetheless, amid the romantic and enthusiastic view academics have about AI-based conversational tools, specifically ChatGPT, there are concerns about the threats it poses to the education industry. Paramount among such threats is the possible compromising of academic integrity. Thus, learners can cheat and get away with it. From a practical implication perspective, instructors might be unable to determine the intrinsic capability of individual students. They might have to find new assessment methods to monitor students' learning progress.

The chance ChatGPT offers to students to plagiarise also raises ethical concerns in conducting examinations. Other studies have also reported ethical issues, such as the propensity of ChatGPT to be biased and user privacy and the usage of user data. Additionally, the subscription version of ChatGPT (which is ChatGPT plus based on GPT 4 technology) puts learners who need help to afford the cost of a subscription at a disadvantage. The multimodal nature of ChatGPT Plus affords subscribers more accurate responses and text-to-speech and imaging output, which is currently unavailable in ChatGPT. This implies that learners using ChatGPT Plus for online exams might outperform their ChatGPT counterparts based on GPT 3 technology. This case might perpetuate the educational inequalities that United Nations (UN) Sustainable Development Goal Four (SDG 4) hopes to alleviate.

This is one of the first studies to take a systems view of the application of AI-powered conversational tools, precisely, ChatGPT, as a learning strategy in teacher education. However, few studies have been published on ChatGPT because it is still a novel technology launched a couple of months ago. A small-sampled participants' voices were captured about ChatGPT, but a larger sample might yield different results. The majority of studies on it are preprints. Hence, not all available studies on ChatGPT might have been captured during our search.

DATA ACCESSIBILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to ethical restrictions.

COMPETING INTERESTS

The authors have no competing interests to declare.

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