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Integration of GenAI tools by academics to humanise pedagogical spaces: An AI humanising pedagogical perspective

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Abstract

Globally, generated AI tools have significantly changed the operations of higher education. This paper contests the claim that academics in the context of this study were exposed to and capacitated with AI literacy, tools and technological skills. The assumption is that they will successfully integrate AI technologies in humanising pedagogy for online learning spaces. This narrative-based research argues, from an AI-humanising pedagogical framework (AIHP), to explore multiple cases of academics integrating AI technologies in humanising pedagogical spaces. Findings reported that AI-generated tools promoted personalised learning, fostering empathy through realistic simulations, generating specific learning content to meet students' needs, and facilitating collaborative learning. Thus, the proposed AI-humanising pedagogical framework provided an alignment in support of dimensions from the narrative-based inquiry depicted in three cases in the study. Higher education institutions must develop institutional AI policies and guidelines for ethical practices, transparency, accountability, and inclusivity in developing and deploying AI.

Introduction

Since the "release" of the large language model (LLM), ChatGPT3.5 and similar AI technologies have emerged, exponentially influencing various sectors, from creative industries to customer service. Scholars emphasise that these AI technologies are programmed to act as "chatbots" to produce human-like text, images, and even music based on instructions (Onesi-Ozigagun et al., 2024; Sedkaoui & Benaichouba, 2024; Takale et al., 2024). These AI-generated tools have significantly changed the operations of higher education. Literature shows a relationship of mutualism between AI and humanity, such that AI technologies can enrich the human experience. In addition, recent developments in AI-generated tools reported impacted personalised learning, ethical and privacy concerns, administrative efficiency, accessibility and inclusion significantly (Amato et al., 2023; Eaton, 2023; Thurston, 2024; Uzumcu & Acilmis, 2024; Zheng et al., 2024). Moreover, an editorial by Rudolph et al. (2023, p.9) posits that AI technologies could be a teacher's assistant because teachers can benefit from technology for "brainstorming, creating new subject content, drafting text-based notes and help for dialogically thinking".

The positive impacts of AI technologies could arguably revolutionise the operations of HEIs globally. Studies reported the benefits of individualised personalised learning and incorporating new technologies in transforming teaching and learning (van den Berg & du Plessis, 2023). Despite being excited, the authors also noted concerns from respondents (Chisom et al., 2023; Falebita & Kok, 2024; Hlongwane et al., 2024; Tarisayi, 2024) about academic integrity and ethics as well as privacy and bias involved with new technologies. Sanders and Mukhari (2024) provide South African lecturers' perspectives on the management support they perceive is essential for integrating AI-generated tools in a blended teaching and learning approach.

Despite positive reports about AI technologies, scholarly publications from the Global South raised concerns about academic dishonesty, ethics, plagiarism, copyright infringements, information privacy and intellectual property rights (Sevnarayan & Maphoto, 2024; Singh, 2023; Verhoef et al., 2022). Moreover, Sevnarayan and Potter (2024, p.2) investigated the impact of ChatGPT on student academic integrity, revealing that the "potential for blurred lines between collaboration and unauthorised assistance looms large and raises concerns about plagiarism and academic dishonesty." To address these concerns, the South African government, as co-signatories to the UNESCO Recommendation to the Ethics of Artificial Intelligence (UNESCO, 2021), gazetted the National Artificial Intelligence (AI) Policy Framework (Department of Communications and Digital Technologies, 2024) as a contingency strategy. This framework provides a strategic framework to enable and accelerate South Africa's leveraging of AI for national development and innovation. One of the vital mandates of this framework is to encourage cyber security, ethical conduct, transparency, accountability and inclusion in the furthering and use of AI (Dai et al., 2024; Eaton, 2023; Popenici, 2023). The framework guides what higher education can do to reap benefits from it while preventing issues that may cause harm (Department of Communications and Digital Technologies, 2024). Therefore, HEIs have the opportunity to leverage this framework as well as use AI technologies as potential drivers to be every bit as important for addressing how institutions work with, rather than against, the nature of being human; hence, it is an absolute prerequisite for best-practice institutional AI policies and guidelines/approaches by institutions everywhere (Cacho, 2024; Lund & Naheem, 2024).

Research reported positive outcomes of harnessing technologies in humanising pedagogy for diverse teaching and learning spaces (Fataar, 2016; Kajee, 2021; Keet et al., 2009; Zinn et al., 2016). In addition, Pika (2024) modelling a professional development framework, a Humanising Digital Pedagogy (HDP) for futuristic empowering teachers. This HDPF integrates AI technologies into education practices to address the needs and experiences of students. This HDP provided the basis for including dimensions not part of the original framework as an opportunity to apply them online. Although some research has reported on the benefits and concerns of AI technologies, there have been few empirical investigations into humanising pedagogy and harnessing AI technologies. Apart from Pika's (2024) HDP model, there is a need to contribute to theory and practice to conceptualise an AI humanising pedagogical model applied in a narrative-based inquiry. Second, despite empirical investigations using multiple-case study design (Yin, 2014), little narrative-based research has been applied in a multiple-case study design exploring academics' views of harnessing AI technologies in humanising pedagogical spaces.

This paper contests the claims that "successful integration of AI in higher education must be grounded in the principles of ethics, equity, and the prioritisation of educational aims and human values" (Rudolph et al., 2024). Moreover, academics in the context of this study were exposed to and capacitated with AI literacy, tools, and technological skills. The assumption is that they will successfully integrate AI technologies in humanising pedagogy for online learning spaces. To attest to these claims, an investigation is prompted into academics harnessing AI technologies into humanising pedagogical online environments. The participants were requested to script narratives based on the following questions:

- What are participants' views of harnessing generated AI technologies in humanising pedagogy for an online learning space?
- How are they selecting AI technologies for the course to apply a humanising pedagogical approach to an online space?
- Based on existing literature and the empirical findings, what dimensions emerged to be included in a proposed AI-humanising pedagogical framework?

Therefore, this paper focuses on defining humanising pedagogy and makes a theoretical argument for constructing an AI-humanising pedagogical framework based on the principles, practices and dimensions applied in multiple cases of either engendered humanised or dehumanised online learning spaces. This argument is based on the

support of a narrative-based inquiry depicted in three case studies. Inclusion, methodological considerations, findings, discussions, and specific suggestions are provided for further investigations.

Context of the study

This multiple case study is located in a College of Education and engaged with one of the catalytic niche areas, Fourth Industrial Revolution (4IR) and digitalisation, at the university where the research is based. Before launching the National Artificial Intelligence (AI) Policy Framework, the college organised several webinars, online discussion sessions and off-campus training to increase awareness of AI literacy and training of academics in AI-generated tools for online pedagogy. Awareness of the ethical use of AI-generated tools for online pedagogy and development of the AI policy and guidelines were held under the selected catalytic niche, followed by several sessions with staff in each of the ten departments. As a college flagship project, the Digitalisation Project was registered to identify specific modules to be part of the catalytic niche area. Based on the university and college strategic objectives and operational plan (2023-2030), academics were instructed to apply the approved AI-generated tools such as Grammarly (paraphrasing), Turnitin (detecting plagiarism) and CoPilot (generated text/context) for online pedagogy. The college management mandated that the author of this paper conduct oversight visits to verify whether academics applied what they learned about AI literacy, ethics, and tools in their courses. The latter resulted in an investigation of academics using AI-generated tools online (van Wyk, 2024).

Literature review

This narrative-based research provides a theoretical argument defining humanising pedagogy and contextualising within an AI-humanising pedagogical framework (AIHP). Thereafter, I briefly explained the model's dimensions in the context of the multiple-case design. In these cases, the consented academics harness AI-generated tools to enhance a humanising pedagogy environment.

Theorising humanising pedagogy

Paulo Freire's seminal text, *Pedagogy of Freedom* (Freire, 1998), impacted the theorisation of humanising pedagogy, and several scholars have extended this phenomenon. Humanising pedagogy enhances a student's dignity, respect, empathy and holistic development (Alm & Watanabe, 2023; Zuin & de Mello, 2024). Therefore, humanising pedagogy is an educational approach that focuses on the holistic development of students by acknowledging and valuing their humanity (Bartolome, 1994). Moreover, Vokwana and Baleni (2023) describe humanising pedagogy as a "decolonial social transformative theory that focuses on the creative utilisation of digital resources to improve the quality of teaching and learning". According to Pika (2024, p. 125), "humanising pedagogy includes building relationships, recognising individual differences, inclusive practices, authentic communication, empathy and understanding, flexibility and personalisation, student-centred learning and promoting well-being". I argue that AI technologies can be the "catalyst" in humanising pedagogical spaces to inculcate respect, human values, emotions, and experiences of students. In addition, Fataar (2016, p. 76) opines that in practising a humanised pedagogical approach, students need to be "engaging within the social-subjective in educational spaces, encourages pedagogies that support how young people mobilise their educational resources and networks across different spaces to facilitate their learning". Therefore, when lecturers apply the humanised pedagogical approach, the existence and expansion of students' humanity are at the heart of humanising pedagogy. Furthermore, Salazar (2013, p. 129) points out that this phenomenon "is guided by principles and practices that may assist teachers and students to develop consciousness of their freedom to access or produce knowledge and to take constructive action".

Studies on humanising pedagogy using AI-powered tools

AI-generated studies indicated ways it could help improve humanisation, such as by creating unique and customised experiences for individual users, creating realistic simulations to help develop a greater sense of empathy and making creative tools more accessible (Kaldaras et al., 2024; Uzumcu & Acilmis, 2024; Zheng et al., 2024). The research proves how AI-enabled chatbots can personalise student support and feedback, allowing personalised interaction between students and learning spaces (Al-Mughairi & Bhaskar, 2024). Additionally, artificial intelligence can replicate human emotions and environments, which can be very helpful in therapeutic situations as a tool for exploring complicated emotions and memories. Moreover, Rudolph et al. (2024, p. 20) argue that the successful integration of AI in higher education must be grounded in the "overall aims of education and bedrock principles of ethics, equity, and the prioritisation of educational aims and human values."

Chan and Tsi (2024, p. 10) confirmed that AI had brought new dynamics, but "the importance of social-emotional competencies can only be developed through human interactions, something which generative AI technologies cannot currently replicate." Crawford et al. (2024, p. 894) concluded that using AI-generated tools in the form of "social support from peers and other people plays a significant role for university students in their sense of belonging," Additionally, AI can create tailored learning materials to cater to students' requirements (Rashid et al., 2024). Studies reported that AI-powered tools adapted learning materials by setting the difficulty level of assessments and offered specific feedback to help enhance interactive and personalised learning experiences by analysing student performance and learning styles (Amato et al., 2023; Kaldaras et al., 2024; Uzumcu & Acilmis, 2024; Zheng et al., 2024).

Scholars supported integrating AI technologies, which offered students personalised and adaptive learning experiences (Al-Mughairi & Bhaskar, 2024; Neupane et al., 2024). Thurston (2024) reported on a comprehensive

strategy with AI-generated tools for humanising learning and AI literacy and engaging on the #DigitalPowerups platform for rigorous student engagement. Apart from this, AI can promote student collaborative learning by arranging team-based learning where community and think-pair-share ideas can be implemented (Ouyang & Zhang, 2024). This view is supported by Nguyen et al. (2024), who reported that ChatGPT significantly influenced student learning behaviours and increased performance. Furthermore, studies reported prevention strategies to combat cheating, academic dishonesty and plagiarism (Rane et al., 2024; Tripathi & Thakar, 2024). Last but not least, the integration of AI should be goal-oriented — an ethical and responsible use of AI (Adillón et al., 2024; Lepri et al., 2021; Popenici et al., 2023).

Methodological considerations

Ethical clearance was approved for this preliminary inquiry under the college's digitalisation project. Hence, an exploratory narrative-based research study was chosen for its qualitative approach. Inquiry-based narratives move from focusing on generalisations to examining the experience of specific cases of academics exploring AI-generated tools in online courses. Connelly and Clandinin (1990, p. 375) defined narrative-based research "as an inquiry methodology which adopts a particular view of experience as a phenomenon under study. People shape their daily lives with stories of who they and others are, and they interpret their past in terms of these stories."

Data were extracted from narratives of participants' views, which provided a rich and valuable way to understand human experiences and the meanings people assign to them. I purposefully selected the narrative-based research and aligned it with the multiple-case study design (Yin, 2014). The selection of the multiple case study design offered a rich and comprehensive understanding of participants' actions in harnessing AI technologies in humanising pedagogy. The selection justified is based on increasing the validity and reliability of three cases to verify findings. The findings of the multiple case studies provided various perspectives on harnessing AI technologies in different courses. In each of these cases, specific trends and patterns emerged, such as AI tools (ChatGPT, CoPilot, Grammarly), grading of assessment tasks, feedback, ethics, and privacy. The findings derived from the multiple cases were more robust.

I analysed academic narratives that exemplify AI-generated tools to humanise students through capacitation with AI literacy skills, awareness, ethics, and privacy within online pedagogical spaces (Kajee, 2021). Purposive sampling was used to select participants who consented to participate in the research. After obtaining consent, participants were informed that their participation was voluntary and that they could withdraw at any time if they felt uncomfortable during the study. The three cases are:

- Case Study 1: Humanising Pedagogy with AI-assisted learning resources. Ruth (female, Senior Lecturer) teaches online under one of the course learning units, Humanising Pedagogy with AI-generated tools.

- Case Study 2: Mpho (male, Associate Professor) co-teaches a Bachelor of Education Honours (Bed Hons) course, Research Design and Methodology, in the postgraduate course using AI-generated tools.

- Case Study 3: Kolabo (female, Full Professor) teaches inclusive education at the undergraduate level. She revised one of the learning units in her module, Using AI for Gender-based Equality and Ubuntu.

Meanwhile, participants used AI-generated tools as phenomena in ways that compared those first with both similar issues and contexts (teaching online teacher education programs) and subsequently contrasted them to others through their narratives (personal experiences) and views as differences in online courses in humanising or dehumanising these tools applied in humanised online pedagogy. The three participants have received training on AI-generated tools as part of the Digitalisation Project. Participants received the two specific questions two days before the online interviews, which gave them time to reflect on them. After the interview sessions, participants had written narratives of each question, which were then emailed to the researcher. The narratives (data sets) were uploaded into the NVivo 14 computerised qualitative software to build themes associated with the narrative excerpts of each of the three cases (https://lumivero.com/products/nvivo/). The following procedures were based on qualitative computerised software: (1) created a project theme according to the research question intended for the procedures; (2) coded data sets of each case (narratives); (3) running the qualitative software, generating and analysis of generated themes; (4) interpreting its results with reference; and (5) compared to original narratives. The verification process was undertaken with participants who received the original narratives (narratives of the three cases) and the themes generated by NVivo's qualitative computerised software. Each participant verified the original transcripts and compared them with the generated themes. After acceptance of the data sets, participants signed to validate the transcribed data and themes generated by NVivo (participant validation). Finally, the generated themes and original transcripts (narratives) were sent to one of the senior professors who specialises in qualitative research and frequently used the NVivo software program to compare, validate and confirm that generating themes are a true reflection.

Findings

The multiple case studies showed that participants' narrated extracts captured the thematic dimensions of AI-generated tools used in their courses to enhance humanising and dehumanising pedagogy in online learning spaces.

Case Study 1: Humanising Pedagogy with AI-generated tools

Ruth (pseudonym) is a female senior lecturer teaching an online undergraduate module within the Bachelor of Education program. Since her appointment eight years ago, she alluded that she experienced a shift in curriculum delivery from blended learning to a fully online teaching mode. Ruth teaches an online module and has revised one of her learning units based on Humanising Pedagogy with AI-generated tools. She was empowered to teach with AI tools. Ruth also attended the college digitalisation project activities to revise her module. The COVID-19 pandemic and AI-generated tools, CoPilot and Grammarly, had affected her online teaching significantly. These two factors created an opportunity to modify the learning unit, Humanising Pedagogy. She had noticed an opportunity to include AI-generated tools.

AI is the "teacher's assistant" in support of humanising pedagogy

The "hype" about ChatGPT and other AI-generated tools created a chance to integrate AI-generated tools in her online module. In the module, she made learning spaces for personalised learning, created an online presence for accessibility, and engaged spaces that fostered a humanising pedagogical approach. Ruth echoed sentiments about how AI-generated tools can support personalised learning:

> "I intentionally use AI-generated tools in my module. I noticed that some of my students had grammatical issues in assessments. Most of the students are African language speakers but are taught in English. As stated, you must be deliberate in overcoming some students' challenges. To remedy this challenge, I created an awareness of the benefits of Grammarly as a paraphrasing tool."

Students used Moodle as a learning management system (LMS) to access the online module. Ruth said:

> "My students received monthly data freely from the university. Therefore, they can access the module site anytime, everywhere, at any location; accessibility is not an issue. As soon as I posted announcements, uploaded learning resources, graded assessments and conducted online discussions, students received a notification.

Creating interactive and engaged humanised spaces for the course

The AI-generated tools created engagement in the module site. Ruth said AI is an active partner in creating interactive and engaging learning spaces. She alluded to the benefits of using these AI technologies. Ruth is serious about active participation and engagement in the module, but these AI-generated tools could reduce student-lecturer interaction. She highlighted that she practices what she teaches in the learning unit, Humanising Pedagogy with AI-generated tools. She spoke about the virtues of caring and Ubuntu. She alluded...

> "Caring for my students is a vital virtue in my teaching identity…I am aware of the profile of my students; some are from rural towns. I do my best to inculcate a sense of Ubuntu and act on the pedagogy of care, particularly in the online presence. I believed in an open-door policy and expected students to consult me if they needed support."

Empowering students with ethical skills in humanising learning

As revealed by Ruth, AI-generated tools must be employed to create personalised learning spaces and engage and assess as a crucial dimension for deep learning and retention of knowledge and skills. Ruth and the students were aware of the ethical conditions, risks, and challenges posed by using the tools. Her concern is that:

> "AI tools are available, so students have access to these tools… having said that… we need to help them not to compromise critical thinking, creative thinking, and independent problem-solving skills".

Inculcate academic integrity as a humanised pedagogical dimension

Ruth is very serious about academic integrity and will not compromise any dishonesty, which remains a humanising issue for her students. Some students were awarded honesty in preparing tasks. Constantly, Ruth had warned students about the consequences of academic dishonesty. She wrote:

> "I created and taught in my teaching that integrity, morality, and ethical practices need to be acted. In the Introduction of the module, moral issues are highlighted and must be adhered to… there is no place for academic dishonesty in my module. Before each learning unit, I made students aware of plagiarism, cheating, and academic dishonesty…I provided a link to the university policy on AI, Assessment, and Academic Integrity on the module site."

Socially and caring is at the heart of humanising pedagogy

Ruth acknowledged that AI-generated tools can facilitate learning but cannot replace the human-nuanced caring and empathetic interactions between students and lecturers. Ruth stated in one of her narratives an issue of isolation. Ruth likes contact sessions and remembered how the pandemic had isolated them. She narrates.

> "The reliance on AI-generated tools and online platforms reduced opportunities for face-to-face interaction, leading to isolation and disconnection among my students."

Ruth believes that human interaction is a critical component of socialisation during the teaching experience, and its absence can negatively impact student well-being.

Case Study 2: AI-generated tools in the postgraduate course

Mpho (pseudonym) was appointed in 2011 and promoted to associate professor. Currently teaches a compulsory module in the Bachelor of Education Honours (Bed Hons), Research Design and Methodology. He also supervises master's and doctoral students as part of his job description. He has experimented with and integrated new digital technologies into student-centred teaching approaches, qualitative research methods, and academic writing. The new Bed Hons program was approved; he had also revised his module by integrating AI-generated tools into the postgraduate course. Since the launch of ChatGPT3.5 and other similar AI-generated tools, Mpho became interested in exploring these digital technologies.

Equipped with AI literacy skills and use of AI technologies

Mpho is experienced in using AI technologies in his teaching. He said:

> "I started with the free version of ChatGPT3.5, and I noticed the tool's benefits. Why are people scared to use it? AI is only a tool; you need to stay in control; it is all about the purpose of using the tool."

Furthermore, he alluded to his exposure to using specific AI-generated tools as part of college catalytic niche areas. He spoke passionately:

> "The training exposed us to AI-generated tools. How to implement it in our modules as part of the selected catalytic niches, the Fourth Industrial Revolution (4IR) and digitalisation. I am confident that Grammarly is a fantastic paraphrasing tool. This tool is a game-changer for my struggling students in academic writing.

Empowering postgraduate students with AI literacy skills

Since then, my students have been empowered and actively used Grammarly. This tool changed their challenges into positives. He said:

> "I exposed and created awareness of the different AI technologies. I was so excited to train my postgraduate students… but believed that AI has been increasingly integrated into teaching, research and community engagement."

AI technologies provide instant feedback and free up time

Concerning integrating humanising aspects, like support for postgraduate students, AI tools can handle administrative tasks such as grading and attendance tracking, freeing up teachers to focus more on direct student interaction and personalised instruction. Mpho speaks confidently about how assessment practices have changed in the past decade. He spoke briefly about the transition:

> "from paper-based to online assessments, but the COVID-19 pandemic has accelerated this process. Before the pandemic, we were exposed to online module platforms and were trained in J-Router as an AI-generated tool for grading students' assessments. The university's information technology unit developed the J-Router tool before the launch of ChatGPT3.5". The J-Router was a great tool to provide timely feedback to students."

Mpho's student profile showed that some completed their undergraduate studies several years ago. Based on the student profile, he said…" *I used the AI-generated assessment performance tool, Power BI, a plug-in in the Moodle LMS, to track students-at-risk and profiling interventions*. According to Mpho, this shift allows academics to spend more time understanding and addressing individual postgraduate student needs.

Use AI technologies to track students-at-risks for early interventions

His Bed Hons students are mostly in-service teachers. He said... *I implemented practical strategies and integrated AI-generated tools for Grammarly and CoPilot, empowering them to create confidence and adapt to new learning experiences in the course.* The adaptability of AI-driven platforms can be used to create and adapt to each student's learning progress, which can increase adaptive learning, providing customised exercises and feedback. Mpho expressed his delight in the progress tracking software…" *I used Power BI to track student-at-risk and create learning interventions*". Another humanising strategy is early interventions based on the performance in the course. Mpho agreed that academics are using AI technologies like Power BI (plug-in Microsoft 365) to support lecturers in analysing students' performances in the course. Lecturers used the data (information) to identify at-risk or struggling students and alert lecturers to intervene early. This proactive approach helps prevent students from falling behind and ensures timely support.

Case Study 3: Harnessing AI to promote gender equality

Kolabo is a female professor in inclusive education. She revised her modules three years ago and experimented with and integrated new digital technologies. She intentionally integrated digital technologies, like ChatGPT3.5, and, until recently, explored other AI-generated tools, such as Grammarly, CoPilot, and Gamma.ai. Why did she harness these tools in her modules? Kolabo mentioned in her narratives that she made a paradigm shift in the learning unit, Gender-based Equity and Equality, by harnessing the AI-generated tools to promote gender equality, equity, fairness and non-discrimination. Since the launch of ChatGPT3.5 and other similar AI-generated tools, Kolabo has become interested in exploring these digital technologies in her courses.

Torch-bearer for engendering gender equality

Her narratives revealed that

> "Gender-based violence is a pandemic worse than COVID-19… eish… every hour, a woman and girl child is either raped or murdered. I sensitised my students about this pandemic that the country is facing. By the way, they will soon become teachers to take the message into their classrooms."

She said the pandemic did not severely impact how she teaches, but the personal touch got a knock…" COVID-19 was disruptive and caused "loss of teaching time. Still, we are teaching online, no time was precisely lost. Still, the personal touch we had missed". As a torch-bearer of gender equality, Kolabo highlights the importance of gender-based issues in harnessing AI in the course. She said:

> "AI could be used as a transformational tool to create gender-based content to humanise gender-based stereotypes and enhance gender equity in the workplace."

She deliberately revised one of the learning units in the course. The purpose is to create student-diverse views on AI-generated content to improve inclusivity and fairness. Since the revised learning unit, she noticed that students know gender-based equity and equality content and practices. Through online discussions, critical reflections emerged related to awareness among her students.

Harnessing AI technologies to generate content-specific case studies

Kolabo used AI-generated tools to generate specific case studies on stereotypes and gender equality in the workplace. After studying the case studies, some students raised concerns about the disparities of women in senior leadership positions because of discriminatory HR policies, practices and gender stereotyping within the teaching profession. Finally, she talked about how AI generates specific content related to the principles of Ubuntu. Her narrative extracts captured some principles of Ubuntu. She narrated:

> "sense of community, inclusivity, and diversity" … inculcating a sense of feeling valued, belonging and supported throughout the course."

Discussion

Literature does not provide a convincing definition for AI, which is evolving and problematic (Fetzer, 1990). Moreover, Sivasubramanian (2021) provides a guiding definition for AI that can be used intelligently and cognitively in support of humans to generate specific content to enhance humanising pedagogy. Based on this guiding definition and aligned to the HDP model of Pika (2024), the proposed AIHP model foregrounded the principles and dimensions of humanising pedagogy, namely ethical, social, and psychological, to support and align to the qualitative, narrative-based research approach.

First, participants' views of harnessing generated AI technologies in humanising pedagogy for an online learning space are provided. Each case study provided specific dimensions for successful application in a humanised pedagogical space. Participants harnessing AI-generated tools for undergraduate and postgraduate studies. Based on Paulo Freire's seminal text, *Pedagogy of Freedom* (Freire, 1998), scholars concurred that humanising pedagogy emphasises the importance of a student's dignity, respect, empathy, and holistic development (Alm & Watanabe, 2023; Rudolph et al., 2024; Zuin & de Mello, 2024). The three cases (Ruth, Mpho and Kalobo as participants) revealed they harness AI-generated tools in humanised pedagogy. This view is supported by Salazar (2013, p. 129), who argues that humanising pedagogy "is guided by principles and practices that may assist teachers and students to develop consciousness of their freedom to access or produce knowledge and to take constructive action".

Findings showed that Ruth and Mpho applied specific AI-generated tools to support students in enhancing personalised learning in the course. Ruth narrated, "*I used Copilot to help tailor educational content to individual student needs, promoting a more personalised learning experience.*" Al-Mughairi and Bhaskar (2024) concurred that AI-enabled chatbots can personalise student support and feedback, allowing personalised interaction between students and lecturers. Furthermore, participants expressed gratitude for how AI-generated tools supported grading assessment tasks and tracking student attendance, freeing them to focus more on direct student interaction and personalised instruction (Kim et al., 2022). A study by Nguyen et al. (2024) confirmed that AI-generated tools like ChatGPT significantly impacted student learning. Studies have reported on supporting postgraduate students and how assessment practices have changed in the past decade (Gray & Dunn, 2024; Kiaer & Jeon, 2024).

The second question focuses on successfully implementing AI technologies for course delivery based on ethics and equality in an online space. Studies reported that AI technologies could create unique, customised content for personalised learning and help develop a greater sense of empathy for AI technologies (Kaldaras et al., 2024; Neupane et al., 2024; Uzumcu & Acilmis, 2024; Zheng et al., 2024). In each case study, participants purposely selected and harnessed AI technologies to create awareness among students, promote gender equality in the course, identify students, and capacitate postgraduate students with research and AI literacy skills. Participant (Mpho) spoke briefly about the support of harnessing AI technologies in her course: "*I used the AI-generated assessment performance tool, Power BI, a plug-in in the Moodle LMS, to track students-at-risk and profiling interventions.*" Similarly, Kaldaras et al. (2024) argue that when using AI to develop AI-generated assessments, the purpose must be aligned with the performance expectations of the learning program. Abdaoui and El Aggoune (2023) found that students often face issues related to accessibility to online courses through Moodle LMS. Ruth said: "*Accessibility ensures all students have equal opportunities to learn and succeed regardless of their circumstances*." If students access the course, student engagement will optimally increase their online presence. Ruth said AI is an active partner in creating

interactive and engaging learning spaces. She alluded to the benefits of using these tools in her module; *I am creative and innovative in using prompting as an AI literacy technique to be prompting*. However, the participant (Kolabo) narrated that harnessing AI-generated tools to promote gender equality, equity, fairness, and non-discrimination is crucial for humanising the learning space (Joseph et al., 2024; Rudolph et al., 2024). Participant (Kolabo) harnessed AI-generated tools to develop gender-based content to humanise stereotypes and gender equity in the course. In addition, scholars reported on the AI-biases typologies and suggested mitigation strategies to overcome AI-generated content biases (Shuford, 2024; van Wyk, 2024). Participants have warned students about the consequences of academic dishonesty, which contradicts humanising pedagogy. AI-generated tools posed challenges and dehumanising risks for participants and the students, such as overreliance on AI-generated tools, isolation, reduced interaction and created academic dishonesty among students (Eaton, 2023; Sedkaoui, & Benaichouba, 2024).

Theorising a proposed AI-humanising pedagogical frame (AIHP)

Based on existing literature and the empirical findings, dimensions were identified to be included for a proposed AI-humanising pedagogical frame foregrounded in Pika's (2024) Humanising Digital Pedagogy (HDP) for the futuristic empowerment of schoolteachers. This model forms the basis of the proposed AI-humanising pedagogical model on the premise of integrating the principles of humanising pedagogy into the development and use of artificial intelligence in teaching and learning. It focuses on creating more empathetic, ethical, and user-centred AI systems. The AI-humanising pedagogical model (AIHP) is centred around three key dimensions, namely social, ethical and psychological, as opposed to the technical aspects of AI. This perspective accounts for the impact of AI on human experience. Various moral/ethical implications of AI qualifying as a decision-making authority create social reactions to deploying an automated system and psychological effects. Intelligent-like behaviour responses are created as humans interact through prompts with AI technologies.

First, the *social dimension* of the AIHP model emphasises transparency, fairness, and accountability in AI-generated tools and usage in each of the cases (courses) applied to ensure that these technologies support human (students) flourishing and reflect societal norms. The social specificity and interactivity of the AIHP model correspond to the collective knowledge base on human engagement with automation, moral discourse relevant to ethics concerns, and the positive psychological valency in manipulating human relations by machines. I argued that three distinctive dimensions underscore the AIHP model based on the social dimension related to societal norms, values, and structures that focus on privacy, bias and equity. Moreover, Devis-Rozental and Clarke (2020) opine that students and academic's "well-being and other associated positive psychology constructs are needed to humanise higher education.". Through AI's application in the three study cases, these dimensions influence social interactions and decision-making, shaping individual and group behaviour.

Second, the *ethical dimension* of the AIHP model is based on integrity, ownership, privacy, bias and human interaction with AI and machine learning (Salle & Rini, 2024). For example, the participants applied the AI-generated tools in a humanised manner, as shown in teaching in an online space. These participants are compelled to act with integrity and ethics when using AI technologies responsibly to protect the image and information of the university. According to Dabis and Csáki (2024), moral and legal responsibilities are vested in lecturers who are information custodians. Therefore, academics must, at all costs, control quality-assured AI-generated content for specific learning units. They are the specialist [experts] to ensure the correctness of such AI-generated content. If neglected, this responsibility could challenge the intellectual property rights, authorship and ethical issues of this generated content. Ethically, suppose the content was AI-generated and appropriate for the course. In that case, academics need to acknowledge the AI-generated software to protect the integrity of the university or could be exposed to serious infringement of intellectual property rights issues.

Finally, the *psychological dimension* in the AIHP model is based on student and lecturers' wellness, empathy, cohesion and group interaction. The psychological dimension in AI integrates psychological principles and human behaviour understanding into developing and applying AI tools in an online space. This dimension focuses on how AI can better interact with humans by recognising and responding to the students' and lecturers' emotions, thoughts, and behaviours. The psychological dimension reflected student and lecturer engagement in course content, some partially AI-generated to achieve module outcomes. In addition, in this study, three lecturers implemented humanising pedagogical practices in online spaces through awareness and preventive strategies of optimal use of AI tools during course delivery.

Conclusion and future research

Based on Paulo Freire's seminal text, *Pedagogy of Freedom* (Freire, 1998), scholars concurred that humanising pedagogy emphasises the importance of a student's dignity, respect, empathy and holistic development. Findings reported that AI-generated tools promoted personalised learning, fostering empathy through realistic simulations, generating specific learning content to meet students' needs, and facilitating collaborative learning. Furthermore, each case study provided specific dimensions for successful application in a humanised pedagogical space. The participants were upskilled in AI literacy, AI-generated tools, and practice to successfully implement AI technologies for the course delivery based on ethics and equality for humanising pedagogical spaces. Moreover, participants purposely selected and harnessed AI technologies to intentionally create ethical awareness of the benefits and drawbacks of AI technologies among students, promoting gender equality in the course, identifying student-at-risk, and capacitating postgraduate students with research, ethics, academic honesty and AI literacy skills.

Based on the existing literature and empirical findings, an AIHP framework is proposed for future training to ensure that when academics integrate AI technologies, they use it in an accountable, transparent, ethical and socially responsible manner to protect the privacy of students, colleges, and universities' information against incorrect AI-generated content which could have intellectual property rights issues. This study had limitations that are associated with a narrative-type of inquiry. The qualitative research used three cases limited to the findings, but a mixed methods design may yield different results when investigating a larger group of participants. This novel study aimed to use the AIHP framework within teacher education for future professional development training. It is recommended that higher education institutions develop institutional AI policies and guidelines for ethical practices, transparency, accountability, inclusivity and protection of intellectual property rights.

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