

Section 1


General Introduction to AI:
Transformative Pedagogies,
Professional Roles, and
Philosophical Inquiry



Chapter 1

Transforming Higher Educational Pedagogies in the Humanities through Artificial Intelligence

Garth Aziz 

*Department of Philosophy, Practical, and Systematic Theology
University of South Africa 
Pretoria, South Africa*

Introduction

AI (artificial intelligence) is no stranger to education as it has been implemented extensively in education and is continuing to gain interest and attention (Chen, Chen, & Lin 2020:75265). AI has been part of education since the early 1950s to ‘understand and improve human and machine cognition’ in the advancement of education (Doroudi 2022:885). Understandably, this strive for educational advancement was mainly in the learning sciences, associated with computers, underpinned by behaviourism, and may not have had any consideration for other disciplines or theories in education that may be deemed as ‘antiscience,’ such as the humanities (cf. Doroudi 2022:895; Chen *et al.* 2020:75267). Consequently, it is construed that the situated learning theories did not only rise as a response to the limitations of cognitivism but also to that of AI (cf. Doroudi 2022:896; Chen *et al.* 2020:75267). The response from the situated learning theories to cognitivism and AI was immersing itself in qualitative research. While some of the proponents of situated learning leaned toward AI, this was not the dominant response (Doroudi 2022:897).

Understandably, AI continues to be a part of the educational landscape and processes (Chassignol, Khoroshavin,

Klimova, & Bilyatdinova 2018:22) even though its function and purpose is markedly different from what its initial purpose was (Doroudi 2022:916–924). AI has since grown and developed into both a field and theory (Chassignol *et al.* 2018; Chen *et al.* 2020:75267) aimed at cognition to solve problems associated with human intelligence and the development of computers to perform human-related tasks, respectively.

Unfortunately, the role and relation between AI and education have been reduced to ‘applications of AI to enhancing education’ in administrative processes such as registrations, administration, tutoring, and scoring systems to reduce challenges encountered in education (Doroudi 2022:886). This role of AI is evidenced in ‘content development, teaching methods, student assessment, and communication between teacher and students’ (Chassignol *et al.* 2018:22).

I write this chapter not as an expert in AI but as an academic in the discipline of humanities in HE (higher education). My interest therefore leans more toward how the humanities can benefit from AI. The missing gap, it may seem, is how AI assists in transforming HE and specifically the humanities when it has a subservient role to merely improve educational systems for a more efficient administrative function. To explain this challenge, the chapter will first conceptualise AI; this chapter will subsequently discuss the importance of the humanities as a study discipline; thereafter it will discuss the value of AI in the humanities as a transforming agent; and finally, it will discuss some approaches to better utilise AI to transform the humanities instead of simply being an administrative function for more efficient systems.

Conceptualising AI in Education

There is no doubt that AI in education has received an increased amount of attention and interest (Chen *et al.* 2020:75265). Naturally, this increased interest in attention gives rise to many different understandings and definitions of AI as well as its role and function, specifically in HE. Considering the historical roots of AI in education, most research in the contemporary context does not focus on its historical purpose and function (cf. Doroudi

2022). Ahistorical perspectives tend to define AI in isolation from its historical functions, become discipline-specific, and are often conceptualised in administrative functions (Chen *et al.* 2020:75265).

The first task in conceptualising AI must be to differentiate between AI and augmented intelligence. The second task in conceptualising AI would also be differentiating between AI and educational technologies. While these may be interrelated, they serve different purposes and functions in the educational sector.

AI means 'to reproduce human intelligence, function autonomously, and replace human intelligence with computer system' (Crowe, LaPierre, & Kebritchi 2017:494). AI can therefore be defined as

the culmination of computers, computer-related technologies, machines, and information communication technology innovations and developments, giving computers the ability to perform near or human-like functions...encompasses the development of machines that have some level of intelligence, with the ability to perform human-like functions, including cognitive, learning, decision making, and adapting to the environment (Chen *et al.* 2020:75265, 75267).

AI is utilised to make machines smarter, therefore to complement or even supplement and augment the human exercise to complete tasks (Murphy 2019:2 of 21). However, AI has not yet reached the point where it can completely replace human intelligence (Crowe *et al.* 2017:495). There seems to be an automatic evolution from earlier educational technologies to eventually give rise to the development of AI (Chen *et al.* 2020:75276).

Augmented intelligence aims to assist or increase the human ability to solve complex problems through computers or other related technologies. Augmented intelligence serves as a support to human intelligence and not a replacement for human intelligence (Crowe *et al.* 2017:494). In augmented intelligence, the human and human intelligence remain the focus and at the centre (Lavenda 2016).

AI must also be differentiated from educational technologies such as personal computers and laptops, social media, and discussion forums. While computers were initially introduced and were the domain of AI in education, the latter has since evolved into web-based and online applications (Chen *et al.* 2020:75277). The use of MOOCs (Massive Open Online Courses) and various LMSs (learning management systems) such as Blackboard and Moodle can be classified as educational technologies (Chassignol *et al.* 2018:17). Educational technologies are employed in HE to allow students to have an immersive experience in their academic journey and to ‘foster continuity of teaching, learning, research and other activities’ (Durodolu, Enakrire, Chisita, & Tsabedze 2023:4). The use of educational technologies typically translates into student support.

Key characteristics for AI, therefore, must include the ability and intelligence to perform specific functions that are required of human actions as this is evidenced in the development of speech recognition and systems for deep learning. AI also has the ability to customise and personalise the content and learning experience of students to meet their needs.

The Purpose of AI in Education

The education sector is perhaps the one industry that stands to change the most due to the impact of AI (Chen *et al.* 2020:75269). Indeed, AI and its usage present endless opportunities to transform and revolutionise education (Chen *et al.* 2020:75273). I, however, am particularly interested in how AI can enhance the student’s learning experience and promote deep learning without compromising academic and ethical standards, such as plagiarism, which has become a concern in recent publications (Huang 2022:1863; Irshad, Azmi, & Begum 2022:23). Another area that needs further attention is the concern that educators may have of becoming obsolete in teaching as AI may threaten the teaching enterprise (Irshad *et al.* 2022:22).

AI and its various applications are widely used in the educational sector ‘including such tools and technologies as teaching robots, intelligent tutoring systems, and adaptive

learning systems. We can also mention such AI applications as adaptive skill building, scheduling, career education, and many others' (Chassignol *et al.* 2018:17). In other words, there is sufficient evidence on how AI is being used in administrative functions for a more efficient educational process. These administrative functions are vital especially in student support by presenting continuous, immediate, and meaningful feedback on student progress and guidance by the educators. With the bulk of the administrative tasks performed by AI, the educators can be free to focus on student engagement and craft a personalised learning plan for each student. While feedback on assessment and learning is both an administrative and academic task, it remains an important part of the academic journey of each student. AI has made significant inroads into areas of feedback through intelligent tutoring systems (Rus, D'Mello, Hu, & Graesser 2013) which increase student understanding and performance (Crowe *et al.* 2017). These intelligent tutoring systems allow for an individualised tutoring system between the educator and the student which caters for a more personalised learning approach not only for assessing the student's level of learning and understanding but also to assist students in deep learning by addressing their needs (Chen *et al.* 2020:75267). Deep learning also requires the student to carefully consider and process ideas, content, and approaches so that they may clearly articulate and explain their perspectives on AI technologies to address challenges (Rus *et al.* 2013:43). AI, therefore, can be a useful pedagogical tool for educators and can improve the overall quality of the curriculum design, content, delivery, and engagement with the student. Murphy (2019:14 of 21) narrates:

I have identified three areas in which AI-based solutions have shown promise for supporting teachers in challenging areas of instruction: adaptive instructional systems that allow teachers to differentiate instruction at the student level for certain topic areas and skills; automated scoring of student writing assignments, which supports teachers' ability to assign more writing in the classroom; and early warning systems, which alert administrators and teachers

when students may need additional support to stay on track and progress toward graduation.

The evolution of AI in developing tools for academic integrity should allay the concerns and fears of educators that the students will not commit themselves to completing their work. Instead, tools for plagiarism checking and proctoring have greatly assisted educators in identifying and maintaining academic integrity (Chen *et al.* 2020:75274).

While there will always be areas of risk in academic honesty (Crowe *et al.* 2017), the benefits of AI in education surpass the risks and concerns that educators envisage (Chen *et al.* 2020:75275). Academic dishonesty did not start with AI, instead, it just brought it more to the fore. However, AI allows and fosters deeper learning by leading students to ask more specific, relevant, and critical questions and to explain and articulate their questions and responses fully and clearly (Chen *et al.* 2020:75275; Rus *et al.* 2013:47). This deeper engagement allows for the retention of information and generation of new knowledge (Chen *et al.* 2020:75275). The personalisation of AI allows this process of interrogation and articulation to favour individualised learning as it starts fashioning its assistance to suit the student's strengths and capabilities. These further assist students who may not have a strong comprehension of language and grammar by highlighting and revising work so that it is on an acceptable standard. AI also allows students to track their learning and progression of their studies having a motivating effect on the students and their progress.

AI systems will be utilised more extensively in the education sector and will extend the educators' functions beyond just assisting students to grasp specific content. It will have a significant impact on the students' 'personal skill, knowledge mastery, learning ability, and career development' (Chen *et al.* 2020:75276), thereby extending beyond the classroom setting and infiltrating the life of each student.

Why the Humanities?

The humanities, often used interchangeably with the liberal arts, pose a basic question, 'What does it mean to be human?' as it explores the human condition about oneself and the natural world without limiting the answer to a preset of ideas and criteria enforced by a patriarchal and colonial world (Smith 2015:741). That is why characteristics of the humanities include 'values, emotions, and relational learning[, and] are critical professional competencies, thus are core assessment areas' (Palahicky, DesBiens, Jeffrey, & Webster 2019:83). Disciplines in the humanities generally include 'philosophy, political science, religious studies, history, anthropology, sociology, literature, art, music, and studies of language and culture' (Nussbaum 1998:11) and these characteristics of the humanities must form part of the pedagogy employed. In HE, the humanities, like many other disciplines, also places more value on 'utility and cost' often at the expense of human values (Gorny-Wegrzyn & Perry 2021:221). Utility and cost are evident in the cost-to-expense ratio of programmes and modules to meet university viability standards, the need for a higher cohort of student success rates, and the employability of the students. The humanities serves various functions in society whether it is economic upliftment and medical or health-related needs through 'social prescribing' (Smith 2015:747). However, this is merely considered instrumentalism and flippantly reduces the humanities to pragmatic causes instead of considering its real value without any concerted effort (Smith 2015:742). In addition, research in the humanities should not be reduced to trivialism but should be allowed to have its rightful place in academic research (Smith 2015:751). It must also be noted that research and teaching are inseparable as the one cannot exist in isolation from the other. Indeed, '[h]umanities centers are highly adept at circulating new ways of undertaking research and of learning' (Woodward 2009:114). Research in the humanities should also not only seek causations or solutions to challenges. Instead, research and teaching in the humanities should foster interpretation, wonder, exploration, reflection, and even the reinvention of the human experience through care and hope and its relation to the broader natural world. The humanities provides

the best answer to teaching and preparing students for a new world that is heavily influenced by AI so that they can create a better world that is characterised by care and hope (Caplan, Selingo, Kitcher, Robbins, Underwood, Starr, Vinsel, Chiang, Clark, Botstein, Pines, & Boyd 2023).

Pedagogies in the Humanities

Pedagogy is not just how students learn but also how the educator approaches teaching, which involves the philosophy, theory, and construction of the practice of teaching (Hirsch 2012:6). Additionally, '[w]hen we [educators] reflect on our values and teaching practices, it's just as important to think about how we engage, support and interact with our students, as it is to think about design of course content and learning activities to facilitate the holistic development of students' (Palahicky *et al.* 2019:81). It would be illogical to assume that the approaches to teaching, called pedagogies, are stagnant. Pedagogies should, and usually evolve to meet the new demands and challenges inside and beyond the academy (Hirsch 2012:6).

The humanities, to a large extent, has not always included the use of computers (Barman & Baishya 2023:305). However, computers and various technologies are now almost extensively used in the humanities, which have changed how one perceives and conceptualises this discipline (Barman & Baishya 2023:305). Whether AI is used as part of the curriculum or is influencing the curriculum, the use of technology has influenced and introduced the term 'digital humanities' (Barman & Baishya 2023:305). Digital humanities, while not focusing on AI, shows how technology not only shapes education but introduces new aspects and even disciplines as it 'looks at how people use digital technologies and approaches to address problems in the humanities, as well as how they think and behave when using them' (Barman & Baishya 2023:305). The challenge, as is evident in this book project, is that pedagogy usually plays second fiddle to research and sometimes becomes oppressed in the search for publications, research grants, and even promotions. Hirsch (2012:5) raises this concern about pedagogy losing its importance to research and warns against this trend. AI, in this case, should

not only be a subject of research but also a part of pedagogical processes and even pedagogy itself. Pedagogy is the ideal means to stabilise a field by not only introducing a specific subject but by making it part of its existence or 'canons' (Hirsch 2012:13). In other words, it is what gets taught. In this case, AI does not just become research, but pedagogy.

AI should form part of the humanities curriculum, like Spector (1995:1) argues, 'Modern liberal arts pedagogical methods are successful in introducing students to large, diverse, interconnected bodies of knowledge; they can be similarly successful in introducing students to the large, diverse, interconnected bodies of knowledge that constitute AI.' This approach to an AI curriculum in the humanities could align the themes to institutional vision and agendas. AI topics should be thoroughly addressed as these relate to the humanities, and it could attract a new cohort of students (Spector 1995:2). However, AI education should not exist as a single course but through a collection of interspersed modules.

The facilitation by AI should not create uneasiness among educators who may fear that machines will replace humans and therefore steer the students in a completely different direction (Crowe *et al.* 2017:495). Instead, AI should be harnessed to facilitate learning through content engagement, knowledge production, applying practical or experiential experience, and work-integrated learning in the humanities through 'virtual reality, 3-D, gaming, and simulation, thereby improving the students' learning experiences' (Chen *et al.* 2020:75276). Murphy (2019:13 of 21) relates:

The work of teachers and the act of teaching, unlike repetitive tasks on the manufacturing floor, cannot be completely automated. Good teaching is complex and requires creativity, flexibility, improvisation, and spontaneity. At the same time, teachers need to be able to think logically and apply common sense, compassion, and empathy to deal with the everyday nonacademic issues and problems that arise in the classroom – abilities famously lacking in even the most advanced AI systems. In addition

to providing students with opportunities to develop narrow procedural knowledge and skills across a range of content areas (something that AI is particularly good at), schools and teachers must support the development of the whole child and provide students with rich opportunities to develop higher-order critical thinking and communication skills, as well as important social and emotional skills and mindsets (such as interpersonal skills, self-efficacy, and resiliency).

As discussed above, in areas of deep learning, students in the humanities are required to carefully consider the content and not merely regurgitate content in order to make a meaningful contribution to their disciplines as well as their contexts. AI requires explicit and thoughtful responses from students so that it may provide possible solutions to challenges (Rus *et al.* 2013:51). Therefore, a level of critical reasoning and articulation is required by students in the humanities to speak the language of the specific discipline and acquire industry-specific knowledge and language (Rus *et al.* 2013:51). Apart from these, students should approach the subject and discipline to acquire more in-depth knowledge.

The Role of the Educator

The role of the educator is paramount in this discovery. However, the educator should not pose as a specialist focusing to publish new research on the matter. Instead, the educator should be a facilitator and sojourner alongside the student in the quest for deeper learning without having to make a stance of being the professional and purveyor of all knowledge on a particular subject. After all, AI, while it is not a new concept, remains an emerging concept in the humanities as educators try and make sense of its purpose and function in the academy and society. This points to the need for pedagogical transformation in the humanities.

Pedagogy is the heart of the educational journey and academy. While there is a symbiotic relation between pedagogy and research, pedagogy should not be reliant on research but inform research (Hirsch 2012:16). Therein lies the need for pedagogical transformation, and this transformation must start

with the educator. Yet, educators must be granted the assurance that AI will neither supersede nor replace teaching (Crowe *et al.* 2017:495). The educator, by nature, should be a critical thinker, therefore critically ponder about the purpose and role of AI in teaching. The educator should not be dismissive of new trends or evolution in education for fear of extinction and pursue self-preservation. Instead, when the educator critically reflects on the matter of AI, pedagogies in the humanities can be reinvented and transformative. This critical reflection of pedagogy and AI in the humanities require that educators must become well-versed in the current AI trends and technologies (Crowe *et al.* 2017:495).

Upskilling of educators is not a new challenge and it should therefore not come as a novelty in education. However, upskilling should exceed merely familiarising oneself with the available AI technologies. Instead, an educator like an instructional designer 'should have multiple roles as researcher, innovator, and informer' (Crowe *et al.* 2017:505). While speaking in the field of digital humanities, Hirsch (2012:17) raises the ultimate challenge of every educator: 'To reflect critically about pedagogy is to reflect critically about what it is that we do.' Is the job of the educator to teach what they know, reflect on what they teach, or reflect on what they know and how they know it? What is it that the educator in humanities does? Pedagogical processes are central to what the educator does and in return has a profound effect on the student. Therefore, pedagogy and reflecting on our pedagogy remain an important task of our teaching, while failing to consider this becomes a disservice to the humanities (Hirsch 2012:17).

The humanities should not just be educating students to upskill them for pragmatic purposes like employability. Instead, the humanities should assist students in discovering beauty and meaning and wonder about what it means to be human in the quest to further discover the human condition. After all, learning is a social activity 'in which we discuss, dispute, verify, reject, modify, and extend what we (think we) know to other people and the world around us. These are fundamentally human endeavors' (Caplan *et al.* 2023). AI will not pose any threat to this humanistic endeavour, instead, it will not only assist students with what they know or ought to know but also with the 'why' and 'how'

of knowing (Caplan *et al.* 2023). AI in the humanities should excite the educator and student with the ‘pleasures of learning’ as both discover new knowledge or arrive at possibilities that support various opinions or hypotheses (Caplan *et al.* 2023). This endeavour of discovery is what the humanities should pursue for students to be enthusiastic in finding meaning, value, joy, and not just being employable (Caplan *et al.* 2023).

Pedagogical values, therefore, determine the educator’s input and approach to the curriculum and programme design and will reflect on what is delivered to the student. What an educator believes is important, as these beliefs influence the pedagogical values that guide the educator to design courses for student success (Palahicky *et al.* 2019:80). This is especially important in the era of AI, where the human touch is still an essential element for the student. The pedagogical values of care, diversity, community, and justice are essential to instil an ethic of integrity and create an environment that is favourable for student-centredness (Palahicky *et al.* 2019:80). After all, students will be entering a world that will be greatly influenced by AI and should take with them not only skills but also ethics and values suitable for a dynamic world (Caplan *et al.* 2023; Palahicky *et al.* 2019:80).

Educators in the humanities, while sometimes not feasible, should learn to know their students through engagement and by working closely with them and create relationships that are defined by care. In this way, the educator can inspire the students to not cheat, pride themselves in their work, and submit their work timeously (Caplan *et al.* 2023). This is especially vital in online and distance HE. It will also require the educator, through their pedagogical values, to design better course material that would minimise and even detect cheating. The humanities, after all, should not just focus on the curriculum at the expense of the human aspects (Palahicky *et al.* 2019:82).

AI and Humanities – a Pedagogical Dance

AI is interdisciplinary and intersects more disciplines than just being limited to the sciences (Spector 1995:1; Barman & Baishya 2023:308). While the sciences are the majority stakeholder in

the design of AI, there is a need to consider and include the humanities in the process to mitigate against the redundancy or replacement of human intelligence and agency (Dimock 2020:450). Furthermore, 'AI is going to transform every discipline, including and especially the humanities...[It will ask] fundamental questions that the humanities are best equipped to answer' (Dimock 2020:450). In this sense, the humanities will have more of an effect on AI than AI on the humanities. Perhaps, if AI is influenced by the humanities, the impact and transformation will not be that great as it becomes a tool by the humanities for the humanities.

Pedagogy is King

The humanities should shift its focus away from how AI operates or how to define it. Instead, the humanities should consider what AI can do in pedagogical planning. The focus should be on pedagogy as it is pedagogy that determines and directs the philosophies and approaches of the educator and how these will affect the student. In addition, or even more importantly, pedagogy will determine the direction of the discipline. In the same manner that instrumentalism has been critiqued, so too should humanities step back and have a more open stance to AI. The relation between AI and the humanities should become more cooperative and explorative, a dance where each is reliant on the other for direction, rhythm, tempo, and trust – a pedagogical dance that is defined by 'mutual standards' and 'meaningful interactions' (Bearman & Ajjawi 2023:1164) as well as care (Palahicky *et al.* 2019:82).

Mutual Standards

The standards required for a pedagogy between AI and the humanities must be mutually agreed upon between an educator and their students (Bearman & Ajjawi 2023:1164) as AI will be used for student assessment, feedback, and personalisation. Additionally, AI will be used for student upskilling in language, as well as critical and deep thinking. Yet, these functions remain a social endeavour where it is not isolated from the human condition and its pursuit of beauty, mystery, discovery, and translation. The

standards must not only embrace what the humanities is but also pursue its purpose. This has a direct bearing on the choice of AI in the humanities and also on how AI should be used to achieve the overarching goals of the humanities. These overarching goals can be realised to achieve quality standards and best practices using rubrics to avoid ambiguity and to provide creativity and exploration, ethical standards for research and assessments, the limit of standards that prescribe the use of AI, and disciplinary guidelines and implications (Bearman & Ajjawi 2023:1165).

Meaningful Interactions

Meaningful interactions with AI can also be a journey of self-discovery and knowledge systems as it relates to AI and the humanities about society. Through meaningful and appropriate pedagogies, a student is able to develop the skills and ethics required to understand and use AI that is appropriate for their context but also not to misuse AI systems when it is not aligned to sound ethics and morals within the course and even society at large. These interactions, when correctly administered, will reduce cheating and promote honesty and collaboration. Through this process the student is faced with situations where they have to make choices on how to proceed with the utilisation of AI and reflect on their self and how they would want to engage with AI in their studies. In other words, the student will have to face and develop evaluative judgement, be confident in their abilities, and understand their positive contribution to society as one who has completed what was required (Bearman & Ajjawi 2023:1167).

Care

A pedagogy of care can arguably positively affect a learning environment as well as a student's engagement with their studies and ultimately a positive outcome of learner success (Gorny-Wegrzyn & Perry 2021:222). A pedagogy of care is more than merely identifying students' struggles but how to understand their struggles so that these can be translated into new teaching strategies for student success, collaboration, and sharing of new ideas, and create positive learning outcomes for students to be positively active as citizens in pursuit of social and political justice

through ‘kindness, respect, and empathy’ (Gorny-Wegrzyn & Perry 2021:222). A pedagogy of care can ultimately create an environment where honesty and ethics abound as these are vital in the student’s engagement with AI to create an ethic of honesty.

A pedagogy of care allows educators to invite students to contribute to the subject matter no matter how knowledgeable the educator may be in that subject. This allows for innovation as students feel more valued and committed and may also contribute new understandings of the subject especially as it may relate to new areas of AI. A pedagogy of care, therefore, afford opportunities for innovation as the context allows for a space that resembles the ideals of the humanities of what it means to be human amidst an AI- mediated space.

AI Functionality in the Humanities

AI should not just be utilised to realise solutions to problems but also to discover. In other words, students in the humanities must understand how to work ‘meaningfully’ with AI (Bearman & Ajjawi 2023:1167). Three specific guidelines are: ‘1) [D]eveloping critical digital literacies for an AI-mediated world; 2) tasks that develop evaluative judgement; and 3) acknowledging emotions, and the role of trust and doubt’ (Bearman & Ajjawi 2023:1167). The three guidelines have specific outcomes of self-awareness, discovery, and upskilling, which are valuable traits within the humanities.

Developing Critical Digital Literacies

Digital literacy, according to Bearman and Ajjawi (2023:1167), is the ability to read the world and the student’s needs to develop the ability to navigate and critically engage with AI-mediated environments. This requires that students must be able to assess and acquire skills beyond simple skill development to more critical and evaluative approaches by not just acquiring digital skills but learning how to critique and work with the digital within an AI system.

Bearman and Ajjawi (2023:1167) discuss and emphasise the importance of critical thinking and evaluation in the context of digital literacy by aligning these with contemporary educational

needs. Students must also learn about the challenges or potential drawbacks of relying on AI in academic practices. However, both students and educators learn and understand the evolving role of AI technology in education and its impact on society. While it encourages students to acquire digital literacies, it encourages educators to foster a balanced understanding of AI's impact on students. Acquiring digital literacies goes beyond mere skill development and encourages a critical evaluation of AI-mediated information aiming to equip students with the ability to navigate the complexities of the digital world.

Developing Evaluative Judgement

Evaluative judgement, according to Bearman and Ajjawi (2023:1168), is when a student can make decisions about the quality of their own and others' work by recognising and evaluating quality standards. Students, therefore, actively contribute to their studies and society through their work by building an evaluative judgement. The promotion of evaluative judgement is crucial in preparing students for an AI-mediated world by shifting the focus from mere task completion to understanding its value and how their work aligns with societal notions and expectations of quality. This allows them to assess their contributions within AI interactions by 'leveraging knowledge of disciplinary quality standards...acknowledging that social actors' contributions are often unexplained[, and] utilizing digital literacies in evaluating AI interactions' (Bearman & Ajjawi 2023:1168). Evaluative judgement goes beyond cognition, as students are confronted with acknowledging the role of emotions, especially in dealing with ambiguous, complex, and unknown situations, and concretises the role of the student in contributing to the world with their work through evaluative judgement.

The focus on evaluative judgement is also indicative of the evolving educational landscape and recognises the need for students to navigate and critically engage with AI-mediated environments. The focus on evaluative judgement aligns with the broader goal of fostering critical thinking skills through various pedagogies with practical tasks and acknowledging the affective domain and not only cognition.

Acknowledging Emotions

Emotions play an important and crucial role when students engage with technology in the same way that they navigate relationships with people, spaces, and objects (Bearman & Ajjawi 2023:1169). Technology is not excluded from emotional engagements. Acknowledging and understanding emotions is important when dealing with AI technologies. The educator's role is vital in prompting a consideration of the role of emotions, especially trust, and not just helping students to regulate emotions. Trust involves both cognitive and affective elements and requires the student to take a 'leap of faith' towards a favourable outcome. 'Epistemic doubt' is thus introduced (Bearman & Ajjawi 2023:1169). Epistemic doubt is described as both cognitive and affective – a state of uncertainty and discomfort. Students are encouraged to hold AI interactions in epistemic doubt, which is the uncertainty about the link between recorded data and real-world objects by recognising that information may be partial, biased, or incorrect. This uncertainty allows students to navigate between trust and distrust and encourages a critical analysis of their interactions with AI systems.

Emotions, therefore, are not sidelined or dismissed when dealing with AI technologies. Instead, students are presented with situations that link emotions with human action as they engage with the uncertainty of technology. In addition, it also assists students in understanding how emotions shape interactions with AI systems. Emotions, trust, and epistemic doubt are highly relevant to the ethical considerations and challenges faced by students who engage with AI systems especially as they are confronted with nuanced perspectives on the complex relation between human emotions and technology (Bearman & Ajjawi 2023:1169).

Conclusion

The humanities are interested in researching the human question and the human dilemma. In the same way, AI in HE should also be implemented to assist the human question and the human dilemma. When employing a pedagogical dance between AI and

the humanities, the reasons and purposes must be explicit, and neither the educator nor the student should be left wondering why it is implemented. The pedagogical dance should be considered one that is intentionally implemented to meaningfully utilise AI in the humanities so that the student is prepared for an AI-mediated world. The pedagogies utilised must prepare the student wholistically not only with the desired skills for an AI-mediated world for employment but also with the ethics and judgement required of them.

In addition, the humanities should utilise AI in such a way that the student is always wondering, exploring, and translating the pursuit of meaning and purpose in a world that offers more than just economic satisfaction. These traits must be evidenced by a pedagogy of care where the educator instils these desires and traits in the curriculum and utilises AI to further these ideals. The humanities should not be defined by pragmatism but by exploration and wonder.

AI is meant to supplement and augment the educator so that they may have greater capacity and tools to be more effective and efficient to support the student. AI in education will never replace the educator and the level of intelligence required to meaningfully journey with the student. Discovery and assigning meaning will always remain a human activity.

References

- Barman, B. & Baishya, K. 2023. Growth and development of digital humanities as an independent academic discipline in India. *DESIDOC Journal of Library and Information Technology* 43(4):305-310. <https://doi.org/10.14429/djlit.43.04.19223>
- Bearman, M. & Ajjawi, R. 2023. Learning to work with the black box: Pedagogy for a world with artificial intelligence. *British Journal of Educational Technology* 54:1160-1173. <https://doi.org/10.1111/bjet.13337>

Chapter 1

- Caplan, B., Selingo, JJ., Kitcher, P., Robbins, H., Underwood, T., Starr, GG., Vinsel, L., Chiang, M., Clark, R., Botstein, L., Pines, DJ., & Boyd, D. 2023. How will artificial intelligence change higher ed? *The Chronicle of Higher Education*. 25 May 2023. Available at: <https://www.chronicle.com/article/how-will-artificial-intelligence-change-higher-ed>. (Accessed on 12 November 2023).
- Chassignol, M., Khoroshavin, A., Klimova, A., & Bilyatdinova, A. 2018. Artificial intelligence trends in education: A narrative overview. *Procedia Computer Science* 136:16-24. <https://doi.org/10.1016/j.procs.2018.08.233>
- Chen, L., Chen, P., & Lin, Z. 2020. Artificial intelligence in education: A review. *IEEE Access* 8:75264-75278. <https://doi.org/10.1109/ACCESS.2020.2988510>
- Crowe, D., LaPierre, M., & Kebritchi, M. 2017. Knowledge based artificial intelligence technology: Next step in academic instructional tools for distance learning. *TechTrends* 61:494-506. <https://doi.org/10.1007/s11528-017-0210-4>
- Dimock, WC. 2020. AI and the humanities. *PMLA* 135(3):449-454. <https://doi.org/10.1632/pmla.2020.135.3.449>
- Doroudi, S. 2022. The intertwined histories of artificial intelligence and education. *International Journal of Artificial Intelligence in Education* 33:885-928. <https://doi.org/10.1007/s40593-022-00313-2>
- Durodolu, OO., Enakrire, R., Chisita, CT., & Tsabedze, V. 2023. Coronavirus pandemic open distance e-learning (ODEL) as an alternative strategy for higher educational institutions. *International Journal of e-Collaboration* 19(1):1-10. <https://doi.org/10.4018/IJeC.315785>
- Gorny-Wegrzyn, E. & Perry, B. 2021. Inspiring educators and a pedagogy of kindness: A reflective essay. *Creative Education* 12:220-230. <https://doi.org/10.4236/ce.2021.121017>
- Hirsch, BD. 2012. </Parentheses>: Digital humanities and the place of pedagogy. In Hirsch, BD. (Ed.): *Digital humanities pedagogy: Practices, principles and politics*, 3-30. Open Book Publishers. <https://doi.org/10.2307/j.ctt5vjtt3.5>

- Huang, Z. 2022. Introducing neuro-symbolic artificial intelligence to humanities and social sciences: Why is it possible and what can be done? *Technology, Education, Management, Informatics* 11(4):1863-1870. <https://doi.org/10.18421/TEM114-54>
- Irshad, S., Azmi, S., & Begum, N. 2022. Uses of artificial intelligence in psychology. *Health and Medical Sciences* 5(4):21-30. <https://doi.org/10.31014/aior.1994.05.04.242>
- Lavenda, D. 2016. Artificial intelligence vs. intelligence augmentation. *Network World*. 5 August 2016. Available at: <https://www.networkworld.com/article/954063/artificial-intelligence-vs-intelligence-augmentation.html>. (Accessed on 2 October 2023).
- Murphy, RF. 2019. Artificial intelligence applications to support K-12 teachers and teaching: A review of promising applications, challenges, and risks. *Perspective*. 21 pages. <https://doi.org/10.7249/PE315>
- Nussbaum, M. 1998. *Cultivating humanity*. Cambridge: Harvard University Press. <https://doi.org/10.2307/j.ctvjghth8>
- Palahicky, S., DesBiens, D., Jeffrey, K., & Webster, K. 2019. Pedagogical values in online and blended learning environments in higher education. In Keengwe, J. (Ed.): *Handbook of research on blended learning pedagogies and professional development in higher education*, 79-101. Hershey: IGI Global. <https://doi.org/10.4018/978-1-5225-5557-5.ch005>
- Rus, V., D'Mello, S., Hu, X., & Graesser, AC. 2013. Recent advances in conversational intelligent tutoring systems. *AI Magazine* 34(3):42-54. <https://doi.org/10.1609/aimag.v34i3.2485>
- Smith, R. 2015. Educational research: The importance of the humanities. *Educational Theory* 65:739-754. <https://doi.org/10.1111/edth.12145>
- Spector, L. 1995. Artificial intelligence as the liberal arts of computer science. *SIGART Bulletin* 6(2):1-3. <https://doi.org/10.1145/201977.201981>
- Woodward, K. 2009. The future of the humanities – in the present and in public. *Daedalus* 138:110-123. <https://doi.org/10.1162/daed.2009.138.1.110>