Unveiling the Potential: Experts' Perspectives on Artificial Intelligence Integration in Higher Education*

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Abstract: This article investigates artificial intelligence (AI) implementation in higher education (HE) from experts’ perspectives. It emphasises the view of AI’s involvement in administrative activities in higher education, experts’ opinions concerning the influence of the incorporation of AI on learning and teaching, and experts’ views on applying AI specifically to assessment, academic integrity, and ethical considerations. The study used a qualitative method based on an unstructured qualitative interview with open-ended questions. The participants were thirteen individuals currently involved with higher education institutions and had various talents related to AI and education. Findings stress that implementing AI technology in administrative roles within higher education institutions is essential since it cuts costs, addresses problems efficiently and effectively, and saves time. The findings also revealed that AI plays a vital role in learning and teaching by speeding up the learning process, engaging learners and tutors, and personalising learning depending on the learner’s needs within an entirely intelligent environment. AI can produce an accurate, objective, and suitable level of assessment. AI aids students in developing a stronger sense of integrity in their academic work by guiding them through AI-powered applications. AI must adhere to ethical laws and policies, ensuring its potential negative aspects are not overlooked or left unchecked.

Keywords: AI and education administration, AI and education ethics, AI education experts, AI in higher education.

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Introduction

The widespread integration of artificial intelligence has significantly impacted numerous aspects of modern society, particularly within education. Its implementation in education has brought about significant advancements, notably in areas such as student admissions, teaching methodologies, learning processes, academic integrity, and ethical considerations. Despite its evident influence, ambiguity regarding the specific nature of its impact on these crucial dimensions is underscored. This study aims to bridge this gap by meticulously examining AI’s profound influence on education, seeking to clarify both the challenges and opportunities it presents (Slimi & Villarejo Carballido, 2023a).

The role of AI in education demands a comprehensive exploration, particularly in understanding its influence on student admissions, teaching methods, learning approaches, academic integrity, and ethical considerations. While AI’s impact is observable across various domains, some enigmatic aspects remain purely education-specific (Chan & Hu, 2023).

Therefore, this study endeavours to comprehensively examine AI’s influence on education, unravelling its complex interconnections within the educational domain. The paper aims to shed light on various aspects, from admissions processes to innovative teaching and learning methods and ethical implications.

Despite the growing interest and potential benefits of AI in higher education, there needs to be more empirical research on how AI is implemented and perceived by experts in this domain. What are the key challenges, opportunities, and best practices for responsibly implementing AI in higher education, and how does AI impact administrative, pedagogical, and ethical dimensions?
Consequently, the subsequent literature delves into the diverse dimensions of AI’s role in education, aiming to highlight critical areas that necessitate further exploration for a more informed and effective implementation of AI technologies.

Literature Review

Integrating AI in higher education has sparked a transformative shift, revolutionising administrative processes, learning methodologies, and ethical considerations. However, a comprehensive understanding of this urgency to change and its specific gaps is essential amidst this dynamic process. This study aims to elucidate the impact of AI on higher education while identifying critical areas requiring further exploration for a more informed and effective implementation of AI technologies.

AI Revolutionising Students’ Admission

Lünich et al. (2023) contend that the prominence of algorithmic decision-making is on the rise due to the capacity of machine learning algorithms to swiftly analyse student data and render judgments in the context of higher education. Likewise, educational chatbots are also famous for their online consultancy. Therefore, according to Nguyen et al. (2021), deep learning and Rasa (an open-source conversational AI consultancy) developed enabling teachers to build, customise, and deploy AI-powered chatbots and virtual assistants. The designed AI-based chatbot was meant to update students about the difficulties of curriculum admissions, tuition, and IELTS writing. Accordingly, a chatbot pipeline was built to avoid overfitting and was made for Near East University’s Facebook admissions page. The latter gave students detailed instructions and alleviated the administrative staff’s workload.

Equally, Sarraf et al. (2021) conducted a comprehensive analysis of 30 years of surgical resident recommendation letters at one hospital, examining letters of recommendation (LoRs) to scrutinise tone variations between male and female applicants. These applicants were classified based on their grades and scores, with statistical tests comparing various groups of 611 LoRs for 171 candidates, of whom 16.4% were women. The study revealed that female LoRs contained more gendered language and significantly lower Score and Clerkship Grades (SCG) than male LoRs. The research underlined the bias present in LoRs for general surgery in terms of language and gender. Nevertheless, AI’s role in student admissions is just one facet of its broader influence on education, extending beyond admissions to encompass innovative teaching and learning methods. However, there is a notable gap in addressing how biases in AI-driven admissions processes, particularly concerning gender and diversity, can be mitigated.

Transformative AI in Learning and Teaching

Recently, Innovative Pedagogical Approaches in Education (IaPE) have been taught using AI, such as educational Communications (EC) and flipped classrooms. These unique learning technologies digitise and illustrate subject information. Thus, Allen et al. (2021) propose IaPE models for vocational schools and universities through ideological and pedagogical training (IaPT). Researchers created and tested a hybrid IaPT model. Instructional and Assessment Practices in Education IaPE, AI, and educational communications technologies were blended into the flipped classroom to promote IaPE. Nevertheless, these discussions often overlook the significant ethical and privacy concerns related to AI’s data usage and student surveillance.

It is noted that AI creates interactive classrooms by digitising and visualising content. Educational Communications makes AI-prepared resources more accessible and optimises flipped classes, referring to the University of California Irvine machine learning repository (UCI) dataset (Allen et al., 2021; İçen, 2022). However, previous digital learning research lacked personality characteristics or used homework or exam grades to predict learning efficiency. In addition, the association rules and sequential pattern mining investigated the effectiveness and characteristics of learning.

Lee and Wu (2022) note that AI is critical to students’ learning styles since it determines who needs help and provides teacher support. Moreover, in several studies, AI has proven to make algorithm choices, help users, and improve student orientation and performance (Ahajjam et al., 2022). Learning science research has promoted technological advances in education; employing these resources in natural learning contexts improves teaching and learning. In this effort, two University of Central Florida professors used AI-generated courseware as a learning resource for their students. The selection and refinement of the course material are contextualised for each course. The implementation tactics of the instructors over multiple semesters are related to student participation and exam scores. The benefits of adaptive courseware are explored in terms of student results, qualitative improvements by faculty, and iterative teaching approaches for instructors and students (Schroeder et al., 2022).

In addition, Serbia and Romania are reforming their higher education systems to produce market-relevant skills and align them with EU (European Union) policy. The two countries developed a systematic, goal-oriented, adaptive management approach for higher education institutions to remove inequities. 139 Romanian and Serbian teachers from Intelligent Transportation System, Belgrade, and Spiru Haret University participated in a study about AI ability, constraints, and potential conducted by (Bucea-Manea-Țonjiș et al., 2022). Findings showed that future AI technology needs creativity and interdisciplinarity. AI teaching methods should emphasise ethics, values, problem-solving, and daily activities. Future education must include learning materials, critical thinking, and change. AI, machine learning, the Internet of Things, 5G,
cloud, big data, blockchain, data analysis, Microsoft Office, MOOCs, simulation apps, VR/AR, and gamification must be taught. Finally, Cross-disciplinary skills and a long-term perspective are needed (Buceta-Manea-Toniş et al., 2022).

Similarly, Içen (2022) evaluated AI in Turkish education institutions by highlighting complex computer operations, cloud-based services, and amicable network access. The study covered Asian workgroups, neural networks, classroom clustering, private education, and global interest driving Turkey’s AI growth. Içen’s (2022) study emphasised Turkey’s municipal and regional business organisations. The study revealed a decline in AI understanding, calling for better education in Turkey. The results also showed that the Turkish government recommends that universities play an essential role in national and regional AI policies for workforce growth, with consequences for AI adoption strategies.

Likewise, Buceta-Manea-Toniş et al. (2022) examined novices' confidence in using a smartphone-enabled video otoscope, a microscope, and loupes for ear exams and external ear canal procedures. Therefore, 29 medical students completed a prestudy questionnaire on otoscopy and aural micro-suction. Participants were taught ear anatomy inspection and procedures using microscopes, loupes, and smartphone video otoscopes. Likert-style questions examined the modes of confidence and preference. A lack of comprehensive models for integrating AI education across different fields, including humanities, indicates a gap in interdisciplinary AI education models. Salas-Pilco and Yang (2022) found that all strategies boosted exam confidence, and learners’ self-assurance increased. Smartphone-enabled video otoscopes offer nonclinical ear inspection and aural micro-subs. Equally, many institutions of medicine, finance, and law have implemented AI recently and have recognised the potential of AI in education, employing predictive modelling, intelligent analytics, assistive technology, and image analytics. AI apps can identify and educate at-risk students.

Still, the fourth Joanna Briggs Institute evaluated original peer-reviewed research on AI interventions relevant to surgical trainees in medical education. Findings stressed that AI is essential for measuring surgical competency, personalising surgical education, and boosting speciality-specific resources. However, against the fact that AI could detect surgical trainees at risk or assess education, AI still needs more proof in medicine (Kirubarajan et al., 2022). Transitioning from teaching and learning, the next area of concern is academic integrity, influenced by AI implementations.

**AI-Based Assessments**

Elkhatat (2022) believes exams must be credible, reliable, and transparent to increase learning and academic integrity. Therefore, A Monte Carlo approach was used to generate and analyse 600 RSQEs to study the impact of the RSQE (Randomly Selected Question Exam) design on duplicated inter-exam, sequential, and intro-exam questions. Findings revealed that randomly selected question exams (RSQEs) restrict students from swapping questions by preventing duplicate and sequential questions. Randomly chosen questions from the pool and sub-pools affect question repication and sequencing. By making as many sub-pools as there are exam questions, picking one from each, and updating them after each exam, information passing can be stopped, ensuring the integrity of the exam. However, this approach raises questions about the depth and variety of assessment, potentially limiting the comprehensiveness of student evaluation.

In September 2019, Imperial College London implemented a new spiral curriculum for medical undergraduates. Clinical and Scientific Integrative Cases (CSI) is the latest flagship module that adopts a ground-breaking strategy for first-year education. These aims are intended to equip medical graduates to excel in the contemporary healthcare setting. The methods implemented are as follows: CSI has developed a new way of teaching that uses digital resources to combine collaborative case-based learning (CBL) and team-based learning (TBL), as well as learning and programmatic assessment. Results showed that patient-centred integrates clinical and scientific curriculum content, fosters advanced teamwork skills, and offers an engaging student-driven education (James et al., 2022). Critically, the scalability and adaptability of such innovative methods across different disciplines and institutions still need to be addressed.

According to Wang and Zhang (2022), correlational and SEM analyses, personality factors, and rule attitudes influence academic misconduct. Despite studies on the causes and methods of academic dishonesty, it remains a common problem in universities. Three hundred and seventy university students were questioned to examine the association between personality traits (using the HEXACO model), attitudes toward rules ("rule conditionality" and "felt an obligation to respect the law/rule"), and academic dishonesty. This suggests a gap in understanding how AI can be leveraged to personalise interventions and deter academic dishonesty based on individual personality traits and attitudes.

Likewise, Tan et al. (2022) believe that various assessments impact learning and learning behaviour differently. Open-ended questions (OEQs) promote deeper learning than multiple-choice questions (MCQs). Therefore, Tan et al. (2022) investigated whether MCQs and OEQs impact students’ levels of achievement, learning, and engagement in a TBL environment. The MCQs and OEQs exams taken by 66 students were automatically collected in LAMS and compared using a switching replication quasi-experimental design that included pre-and post-tests. Results reveal that students with adequate preparation participated less actively in OEQ talks than students with good practice. The higher-level thinking of OEQ students was demonstrated in the AE debates because they took less time overall and scored higher. This project brings together the knowledge of OEQ and TBL. The study implies that AI could help improve postsecondary education by being used in different classes. Nonetheless, the effectiveness of AI in accurately evaluating the depth of understanding and critical thinking in open-ended assessments still needs to be explored.
Steadily, Verhoeof et al. (2022) reported North-West University's reaction to academic dishonesty during COVID-19 by designing CoPAI (AI platform that helps users create content) to increase AI holistically within online teaching and learning. The CoPAI used this method because it seeks answers to AI questions raised by higher education disruptions. The study contextualised NWU CoPAI within the literature on the community of practice (CoP) and academic integrity (AI) and highlighted its unique technique and holistic character. Results propagate that AI is important since teaching, learning methods, pedagogy, assessment, and technology use will continue to evolve. Beyond its positive impact, AI’s ethical considerations are essential to its integration, affecting various aspects of life, including education and beyond. However, the potential for CoPAI to inadvertently promote a one-size-fits-all approach to education, neglecting the nuances and specific needs of diverse learning environments, is a critical concern.

**AI-Based Academic Integrity**

McLennan et al. (2022) point out that ethical concerns about AI have led to the proliferation of high-level ethical guidelines from public and private entities. Increasingly, AI engineers need help anticipating, identifying, and addressing ethical challenges. This is especially significant in healthcare, as AI applications deal directly with vulnerable patients. These researchers suggest that an "embedded ethics" strategy, in which ethicists and developers talk about ethical issues iteratively and continuously from the beginning of development, could effectively include solid ethical considerations in the practical effect of medical AI. However, while the study emphasises the importance of addressing ethical concerns in AI development, there needs to be more discussion on practical strategies for implementing embedded ethics in real-world AI projects, leaving a gap in actionable guidance for developers and ethicists.

Doggedly, AI is employed in healthcare, business, government, education, and justice, leading us to an algorithmic society. Despite their many benefits, these technologies can harm users and society. Fairness, explainability, accountability, reliability, and acceptance have been advocated to make these systems trustworthy. Therefore, Kaur et al. (2022) analysed all these needs and outlined how to leverage users and society to lessen AI dangers and increase trust and adoption of systems. Their study also discussed evaluating and verifying these systems and AI standardisation efforts. Lastly, they provided an in-depth look at recent progress in trustworthy AI to help academics understand the field and point them in the right direction for future research. However, the study primarily focuses on outlining the needs and benefits of trustworthy AI without delving into specific methodologies or frameworks for evaluating and verifying AI systems, leaving a gap in practical strategies for ensuring AI trustworthiness.

AI’s benefits in education are continuously underutilised, and AI-specific technological pedagogical understanding is needed for a beneficial integration of AI. Therefore, due to ethical issues, teachers must also review AI-based judgments, as no previous study evaluated teacher expertise pedagogically and ethically using AI-based tools. Considering this gap, Çelik (2023) devised a TPACK-based scale to quantify instructional AI knowledge. As a result, TPACK now covers ethics, and teachers will enjoy AI’s pedagogical benefits if they understand how to employ AI-based tools. Additionally, it helps teachers analyse AI decisions, as it alone is insufficient for AI-based educational integration. Therefore, technical knowledge is essential when combined with pedagogical and technical expertise. However, while the study highlights the importance of addressing ethical considerations in AI integration in education, it needs empirical evidence or case studies demonstrating the effectiveness of the TPACK-based scale in improving teacher expertise in ethical AI integration, leaving a gap in practical implementation strategies.

Lyons et al. (2023) conducted a study on human-robot communication performance. After following it, one hundred forty-eight participants viewed footage of a robot deviating from a search path. Lyons et al. (2023) targeted trust repair by emphasising the role of apology, although unexpected behaviour might not necessarily denote an error. To prevent the erosion of human trust, robot colleagues can employ explanations. This study utilised a USAR scenario to examine how motivation influences reactions when a robot colleague behaves unexpectedly. Findings revealed how discrepancies in a robot colleague's behaviour affected trust, reliability, and attributions of blame. Unforeseen actions led to reduced trust (regarding ability, compassion, and honesty), while remarkably unconventional robot behaviour altered the perception of human guilt. Explaining the robot’s environmental consciousness helped reinstate trust.

Big data analytics is an integral part of intelligent information systems. Antoniou and Tringides (2023) reviewed them, as well as transparency and how they affect user experience. Their study examined the data and the motivation for holistically using synthetic data and big data analytics. "Big data" refers to enormous datasets that are difficult to manage with typical techniques. Results revealed that these new opportunities and threats affect user trust.

Frequently, deep learning is used for deep fake identification, massive data analysis, voice recognition, and image recognition. Deepfake combines a deep understanding and artificial creation with political abuse, distribution of misleading information, and pornography. Thus, Ram et al. (2023) analysed aspects of computer vision to determine the trustworthiness of digital content. Their method used fuzzy clustering to extract computer vision features. A deep belief network with loss handling uses paired learning to manipulate video and images. This method enhanced the detection accuracy by 98% across many datasets. Researchers concluded that the desire for AI should increase privacy security and overcome ethical issues. However, while the importance of fairness in automated decision-making is highlighted,
there needs to be more discussion on practical methodologies or frameworks for integrating fairness considerations into automated decision-making systems, leaving a gap in actionable guidance for system developers.

Slimi and Villarejo Carballido (2023b) underscored using AI in higher education. The authors induced that AI introduces significant ethical dilemmas, notably concerning biased algorithms, the displacement of educators by AI technologies, and issues surrounding transparency and accountability in AI-influenced decision-making processes. The authors argued that biased algorithms represent a considerable hazard, mainly when applied to critical operations like admissions and grading, potentially leading to adverse student outcomes.

Slimi and Villarejo Carballido (2023b) stated that AI systems replacing human teachers raise ethical concerns alongside questions about the clarity and responsibility of AI’s role in educational decisions. Their analysis focused on the risk of algorithmic bias, the impact of AI on decision-making processes, and the potential displacement of human staff by AI technologies through a discourse analysis of seven AI ethics policies from prominent entities. Researchers deduced that collective efforts among stakeholders are necessary to tackle these ethical challenges. Ensuring the responsible implementation of AI in higher education demands a commitment to fair use practices and protecting individuals, particularly those with vulnerable characteristics, from bias in algorithms, data sets, and AI-driven decisions. However, while the study highlights the ethical dilemmas introduced by AI in higher education, it needs concrete examples or case studies demonstrating these dilemmas in real-world educational settings, leaving a gap in illustrating the practical implications of biased algorithms on student outcomes.

Methodology

According to Chauhan (2022), interviews are valuable for expressing thoughts, attitudes, and emotions, especially unstructured ones that allow for a deeper exploration of social realities and the generation of diverse data patterns. Hence, this article employed a qualitative research approach, explicitly using unstructured interviews to gather insights from 13 individuals involved in higher education and with varying knowledge about AI.

The participants were selected through purposive sampling to ensure a diverse representation across different levels of AI knowledge within higher education, encompassing categories such as students, alumni, speakers, administrators, and professors. This approach aimed to capture a broad spectrum of perspectives on AI in the higher education community (Streefkerk, 2023).

Ethical considerations were paramount throughout the study. Before the interviews, informed consent was obtained from all participants to ensure voluntary participation. To protect participant privacy and confidentiality, data collection maintained anonymity by coding the participants’ identities (Johnson et al., 2000).

The study maintained ethical protocols throughout. Measures were taken to ensure participant well-being, including maintaining confidentiality, securing data, and reassuring participants about their freedom to withdraw without facing adverse consequences.

Moreover, the researchers addressed potential power imbalances between interviewers and participants by employing a neutral and non-judgmental approach during interviews. By actively considering ethical considerations, the study was conducted responsibly, respecting the rights and well-being of the participants.

To provide an overview of the participants’ backgrounds, Table 1 summarises essential information. Established qualitative research guidelines were followed to ensure the credibility and dependability of the data. The researchers developed a series of fifteen open-ended questions, complemented by additional unstructured inquiries that align closely with the themes explored in their paper. These questions were crafted to facilitate a comprehensive and unbiased exploration of the subject matter. The interview process, employing these questions in a non-judgmental and impartial manner, spanned approximately 45 minutes. This approach ensured a depth of conversation and insight, allowing for a thorough examination of the topics at hand. Subsequently, the gathered data underwent thematic analysis, as Golafshani (2003) outlined, facilitating a comprehensive exploration of participants’ viewpoints and experiences regarding AI in higher education. These insights hold significance for future research and decision-making in this field. The findings offer valuable insights into AI perceptions within higher education, aiding informed decision-making about AI integration.
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<th>Ps</th>
<th>Profile</th>
<th>Affiliation</th>
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<th>Field</th>
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<tr>
<td>P1</td>
<td>Professor with nine years in academia and five years in the industry. I have little experience in artificial intelligence, but I can contribute to the survey from the industry's point of view.</td>
<td>International Maritime College Oman</td>
<td>Male</td>
<td>5 Years</td>
<td>Industry and Academia</td>
<td>Industry-specific AI tools</td>
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<td>P2</td>
<td>Assistant professor with extensive experience in logistics and supply chain management at various undergraduate and graduate levels in multiple nations and countries' educational systems.</td>
<td>Abu Dhabi University</td>
<td>Male</td>
<td>6 years</td>
<td>Logistics and Supply Chain Management</td>
<td>Supply Chain Optimisation Tools (e.g., Llamasoft, JDA)</td>
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<td>P3</td>
<td>A degree student who has been exposed to AI, where I learned its importance and how it would make my life easier if it were applied. It also exposed me to AI, which I understood to be essential and how it would make my life easier if used.</td>
<td>National University Oman</td>
<td>Female</td>
<td>3 Years</td>
<td>Student Learning Experience</td>
<td>Educational Platforms (e.g., Coursera, Udacity)</td>
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<td>P4</td>
<td>A graduate student in Logistics and Transportation Management. I have done internships in freight-sending companies concerning AI. Currently, I am trained at a company that implements AI in its programs.</td>
<td>National University Oman</td>
<td>Female</td>
<td>4 years</td>
<td>Logistics and Transportation Management</td>
<td>AI for Logistics (e.g., ClearMetal, Shipwell)</td>
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<tr>
<td>P5</td>
<td>Operations Executive at AI operating company, specialising in logistics and transport chain management.</td>
<td>Sohar Port Oman</td>
<td>Male</td>
<td>4 years</td>
<td>Logistics and Transport Chain Management</td>
<td>Transport Management Systems (e.g., Oracle Transportation Management, SAP TM)</td>
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<tr>
<td>P6</td>
<td>Assistant lecturer, teaching ESP in maritime, logistics, and marine studies. I use digital technology daily in class, including AI operating applications such as Turnitin, Grammarly, and QuillBot.</td>
<td>Sohar University Oman</td>
<td>Female</td>
<td>5 years</td>
<td>ESP in Maritime, Logistics, and Marine Studies</td>
<td>Educational AI Tools (Turnitin, Grammarly, QuillBot)</td>
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<td>P7</td>
<td>Assistant lecturer with six years of working experience and limited experience with AI. However, I teach English for specific purposes using AI-based digital technology and apps, such as Turnitin, Grammarly, and QuillBot.</td>
<td>International Maritime College Oman</td>
<td>Male</td>
<td>6 Years</td>
<td>ESP Teaching</td>
<td>AI Writing Assistance (Turnitin, Grammarly, QuillBot)</td>
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<td>P8</td>
<td>Manager with 11 years of experience in higher education.</td>
<td>National University Oman</td>
<td>Male</td>
<td>5 Years</td>
<td>Higher Education Management</td>
<td>Administrative AI Tools (e.g., CRM systems with AI capabilities)</td>
</tr>
<tr>
<td>P9</td>
<td>Professor with eight years of experience in higher education. I have always encouraged my students to use online applications that provide personalised activities to improve their English language skills; this is my only experience with online AI applications.</td>
<td>Sohar University Oman</td>
<td>Male</td>
<td>6 Years</td>
<td>Higher Education</td>
<td>Language Learning Apps (e.g., Duolingo, Babbel)</td>
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<tr>
<td>P10</td>
<td>Professor with almost two decades of work in higher education. I have published a paper related to AI.</td>
<td>A'Sharqiah University Oman</td>
<td>Male</td>
<td>6 Years</td>
<td>Higher Education</td>
<td>AI Research Tools (e.g., ResearchRabbit, Copilot for academic writing)</td>
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<td>P11</td>
<td>Lecturer: My teaching experience aligns with the latest technological</td>
<td>National University</td>
<td>Female</td>
<td>4 years</td>
<td>Technology in Education</td>
<td>Modern Educational Software (e.g., Zoom for AI-powered features, Canvas, Perplexity AI for query resolution)</td>
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<td>technologies embedded in educational pedagogy).</td>
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<td>P12</td>
<td>I have been a lecturer in higher education and AI for a long time and</td>
<td>National University</td>
<td>Female</td>
<td>6 years</td>
<td>Higher Education and AI</td>
<td>AI Course Platforms (e.g., edX, Khan Academy), Jenni AI for content</td>
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<td>P13</td>
<td>Admin who had the chance to have an internship in a company implementing</td>
<td>Majan College Oman</td>
<td>Male</td>
<td>4 years</td>
<td>Administration</td>
<td>Business Intelligence Tools (e.g., Tableau, Power BI), Copilot for</td>
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<td>AI and who has learned about the importance of AI.</td>
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Findings

The results highlight AI’s significant role in pupil admission. When participants were asked about AI’s impact on administrative tasks in higher education, their responses indicated that AI serves to reduce administrative and academic workloads. Furthermore, participants expressed concerns regarding obstacles to incorporating AI in the learning process within higher education institutions. These challenges encompass resistance to change within management, financial considerations, data protection policies, a shortage of AI experts, and the associated costs of hiring external experts.

Integrating AI into the instructional process may encounter resistance, as suggested by most participants. Teachers and students may express reservations about the integration of AI in education. Notably, AI ethics plays a pivotal role in addressing these concerns. AI ethics involves a set of moral principles and strategies to guide the responsible development and application of AI technologies. Data privacy and security issues pose significant ethical challenges in using AI in higher education.

AI Revolutionising Students’ Admission

AI significantly influences academic guidance and counselling, fundamentally reshaping administrative functions. Participants P1-P13 exemplify the multifaceted impact of AI in academia and administrative domains.

Participants P1 and P2 highlight AI’s empowerment of students and staff, enabling independent access to resources and streamlining enrollment and admissions processes. AI’s ability to bypass librarian intervention for resource access and conduct student admissions without intermediaries signifies its pivotal role in fostering self-sufficiency within academic settings: “AI empowers students and staff by providing independent access to resources, allowing borrowing books and materials without librarian intervention” (P1). This uninterrupted enrollment extends to student admissions without intermediaries (P2).

Participants P3 and P4 emphasised AI’s role in efficiently identifying individuals needing academic support, providing tailored guidance, and autonomously managing documents. This active and adaptive approach demonstrates AI’s capability to personalise academic support and seamlessly streamline administrative tasks: “AI efficiently identifies individuals requiring feedback or academic support, offering guidance to managers and parents” (P3). It actively examines, monitors, and manages documents automatically, tailoring one-to-one meetings for specific needs (P4).

Participant P5 accentuates AI’s significance in enhancing transparency and efficiency in evaluating student learning and teaching methods. Its role in streamlining academic activities underscores the transformative impact on educational processes: “AI is pivotal in evaluating student learning and teaching, enhancing transparency and streamlining academic activities” (P5).

Participants P6 and P7 underscore AI’s administrative prowess in facilitating uninterrupted enrollment, autonomous account creation, document management, and advocating for educators’ rights. AI’s ability to comprehend teacher concerns, automate communication, and handle administrative tasks showcases its multifunctional utility in educational institutions: “AI facilitates uninterrupted student enrollment and autonomous account creation for new students, thus eliminating IT support” (P6). It ensures document management, comprehends the concerns and needs of teachers, and represents educators in administrative processes, advocating for their rights and conveying management messages accurately (P7).

Participants P9, P10, and P11 highlight AI’s ability to minimise paperwork, solve critical issues, perform data analysis, and enhance student service through chatbots. These actions illustrate AI’s role in streamlining administrative processes and bolstering academic support and assessment: “AI automates communication processes in academic advising, minimising paperwork and increasing administrative efficiency” (P9). Furthermore, AI adeptly handles critical problems, performs sophisticated data analysis, and ensures prompt responses to calls (P10). Academic assessment is enhanced through AI-driven chatbots that elevate student service (P11).

Finally, participants P12 and P13 emphasise AI’s overarching efficiency and transparency in administrative functions such as recruitment, admissions, and institutional optimisation. This technology’s ability to optimise various institutional activities underscores its transformative potential in fostering effectiveness and efficiency within the administrative landscape: “Administrative functions like recruitment, admissions, and candidate selection benefit from AI-driven efficiency and transparency” (P12). This innovative technology optimises various institutional activities, promoting effectiveness and efficiency throughout the administrative landscape (P13).

Table 2 encapsulates the extensive benefits of AI in its role in academic guidance, counselling, and administrative support.
Table 1. AI Role in Students’ Admission

<table>
<thead>
<tr>
<th>Participant</th>
<th>AI Role in Academic Guidance, Counselling</th>
<th>AI Role in the Admin Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>AI enables students and staff to borrow books and other resources independently of librarians.</td>
<td>AI enrolls students without interruptions or intermediaries.</td>
</tr>
<tr>
<td>P2</td>
<td>AI shows who needs feedback or academic support and advises the manager or parents.</td>
<td>AI examines, follows, monitors, and stores documents or data automatically.</td>
</tr>
<tr>
<td>P3 and 11</td>
<td>AI shows who needs specific coaching and prepares a one-to-one fact-filled meeting agenda.</td>
<td>AI enables new students to create usernames and passwords independently of IT support.</td>
</tr>
<tr>
<td>P4</td>
<td>P1. AI is essential as it can be applied to evaluating student learning and teaching.</td>
<td>AI can link job-related documents and remove unnecessary data, for example.</td>
</tr>
<tr>
<td>P5 and 12</td>
<td>AI streamlines activities and increases effectiveness, efficiency, and transparency.</td>
<td>AI increases service accessibility and availability.</td>
</tr>
<tr>
<td>P6</td>
<td>AI shares the worries, needs, and wants of teachers.</td>
<td>AI stands for a group of teachers in meetings and liaises to secure their rights and precise management messages.</td>
</tr>
<tr>
<td>P7</td>
<td>AI helps in academic advising, counselling, and support.</td>
<td>AI automatically sends out emails and prevents unnecessary paperwork.</td>
</tr>
<tr>
<td>P8</td>
<td>AI solves critical problems.</td>
<td>AI deals with data analysis and responds to calls.</td>
</tr>
<tr>
<td>P9</td>
<td>AI can be applied to assess student learning and teaching.</td>
<td>AI improves students' service with chatbots.</td>
</tr>
<tr>
<td>P10</td>
<td>AI streamlines activities and increases effectiveness, efficiency, and transparency.</td>
<td>AI helps in recruiting, admission, and other processes, such as candidate shortlisting and interviewing.</td>
</tr>
</tbody>
</table>

Participants’ Recommendations for Efficient AI Admission

The interviewees recommended the following for better implementation of AI in higher education: They suggested that AI outline and evaluation be an essential factor for success by top management. They pointed out that the assignments should be AI-based. They insisted that college students should be aware of the use of AI. Similarly, the implementation of AI requires training and workshops. They added that AI efficiently analyses data, design, resources, and training. The participants said that college administrations in developing countries should use AI widely. They highlight the importance of college AI consulting, as AI improves learner assessment and user interaction. Table 3 summarises the main points addressed above.

Table 2. Recommendations to Better Implement AI in HE

<table>
<thead>
<tr>
<th>Participant</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>AI-based learning and teaching are required for better outcomes, Highlighting how AI-powered adaptive learning platforms improve student outcomes by customising learning paths based on individual progress and comprehension levels.</td>
</tr>
<tr>
<td>P2</td>
<td>AI-based curricula are needed as the world is changing digitally and radically. Thus, an example of a university integrating AI-related coursework across disciplines is required to prepare students for various industries’ rapidly evolving digital landscape.</td>
</tr>
<tr>
<td>P3</td>
<td>Sharing personal experiences using AI-driven educational tools simplifies complex topics and facilitates practical learning, resulting in better understanding and application.</td>
</tr>
<tr>
<td>P4</td>
<td>Full-scale adoption is required worldwide to meet job market requirements, citing industries such as finance and healthcare where AI skills are becoming crucial for employment and emphasising the necessity for widespread AI education to meet market demands.</td>
</tr>
<tr>
<td>P5</td>
<td>AI-based assessments are a must when talking about intelligent assessments: Describing how AI-powered assessment tools offer adaptive and real-time feedback, enabling more innovative evaluation methods tailored to individual student needs and performance.</td>
</tr>
<tr>
<td>P6</td>
<td>AI supports individualised and tailored education: Providing an example of an AI-driven tutoring system that adapts to students’ learning styles, preferences, and pace, enhancing the effectiveness of personalised education.</td>
</tr>
<tr>
<td>P7</td>
<td>AI-based counselling as AI is vital nowadays: Illustrating how AI-powered language translation and communication tools facilitate counselling sessions between individuals speaking different languages, fostering inclusivity and accessibility.</td>
</tr>
<tr>
<td>P8</td>
<td>AI is highly recommended to ease the administrative, student, academic, management, and decision-making work. It shows how AI streamlines administrative tasks in educational institutions, enabling educators and administrators to focus more on teaching and strategic decision-making.</td>
</tr>
</tbody>
</table>
Participants' Recommendations for Effective AI Use in Learning and Teaching

Participants argued that mixing conventional and intelligent learning could boost institutions’ competitiveness and success. Equally, they think that students prefer modern educational institutions, and AI is everywhere in contemporary life, from form filling to bill paying. In the same context, P7 pointed out that ‘AI is evident everywhere in modern life, from filling to paying bills, so in education, it would be a more efficient way for the learner and instructor to achieve their goals’.

Consequently, AI could improve HE. In addition, AI-based learning is good, and most activities are personalised by the learner’s level, offering additional support and guidance. Finally, HEI’s educational system, procedures, and pedagogy should be standardised to improve college and university learning.

Contributors think that AI can play the following roles in improving learning. Simulations, intelligent boards, workshops, innovative curricula, and thoughtful classes improve AI learning, as argued by P1: ‘Having AI in HE institutions will enhance learning by having simulation programmes, smart boards, intelligent workshops, innovative curricula, and smart classes. AI can personalise instructional software. Besides, software, games, and activities aid adaptive learning, as mentioned by P2. ’AI has the potential to tailor instructional software for each user. Students can access various adaptive learning options, including software, games, and activities. AI is undoubtedly one of the most critical educational uses since it makes learning more pleasant and smoother and cuts beyond individual ability’.

Meanwhile, AI makes learning fun and easy and transcends ability according to the insights of most participants. Not only this, but AI enhances online learning. Equally, AI improves understanding by making it more engaging and individualised. Thus, AI makes learning inclusive and more accessible. AI reliably, transparently, and sustainably connects students and teachers. AI offers shut-outs, affordability, rigorousness, quality, remote learning, and instant feedback. According to P6 input, ”AI connects students/teachers in a reliable, transparent, and sustainable manner. AI provides access to those who may otherwise lose it in a traditional setting. It enables remote learning at a competitive rate of excellence and quality, allowing more successful rigour and popular learning”.

AI aids in adaptive tests, results analysis, and interactive games. AI personalises learning and shows students’ strengths and weaknesses. AI helps students reach their goals by offering personalised feedback on homework, quizzes, and problem-based and critical thinking tasks. AI saves time by providing multiple learning methods. As mentioned by P10, ‘AI can be utilised as an educational tool to lead students toward their goals by delivering individualised feedback on assignments, quizzes, problem-based tasks, critical thinking tasks, and algorithm-based simulations.’

Participants’ Recommendations for Effective AI Use in Learning and Teaching

Participants think implementing AI in the learning process in HE institutions may need help with the following challenges: management’s attitude to change, expenses, protection policies, lack of AI experts, and external costs to hire expertise. Indeed, P10 highlighted concerns about management’s attitude to change, P7 mentioned expenses, P5 raised issues about protection policies, P12 noted the lack of AI experts, and P3 pointed out the external costs of hiring expertise. Institutional infrastructure may need more time to prepare for AI, which could affect liquidity.
Equally tricky are power shortfall, know-it-all, privacy, and security. Add to that bias, privacy, ethics, and conservatism. Managing learning styles is challenging. The lack of resources and training can also be a problem. AI’s scope may be limited by licenses, ministerial approval, and accreditation, as ministries may use old pedagogies. AI only works with the Internet. AI knowledge from academia can be problematic. Students lack AI-capable computers and good Internet, which is not always affordable. AI will reduce human abilities.

Simulations help students develop technical skills. Intelligent boards can play, design, draw, and animate, as mentioned by P1: "By having simulation tools where students can learn from these tools and develop their technical skills. By having intelligent boards where teachers and students can play, design, draw, and use animations during the class." When combined with high-quality content and materials, AI can help students learn faster. As P2 thinks, 'When combined with high-quality instructional content and study materials, AI can help students learn more effectively and quickly.' Everything will be online, making teaching more accessible and modules more manageable. AI enhances the process of analysing student needs with individual exercises and practices and engages them to lower the costs of their fees. AI connects universities worldwide, boosts constructive feedback, and encourages self-study via customised activities.

AI enhances the educational experience by identifying students’ needs through quizzes and customised activities. It empowers academic faculty to offer personalised feedback, learn alongside AI, acquire knowledge about AI, its technologies, and methodologies, and equip themselves for the AI-driven future. For instance, it facilitates a comprehensive understanding of AI’s potential impact on human life, as articulated by P10: "The intersection of AI and education encompasses three key areas: utilising AI-powered tools for learning within classrooms, gaining knowledge about AI - its technologies and methodologies, and preparing individuals for the implications of AI on human lives." Moreover, AI contributes to the globalisation of education, facilitating real-time feedback and bridging knowledge disparities. Implementing AI in the teaching process may be challenging as it may face the following issues according to participants' input: Teachers and students may resist AI implementation. More networks and better infrastructure could help AI use. Other concerns include ethical issues, responsibility, work influence, data privacy, and algorithm ownership. P2 argued, "AI raises several ethical questions, including access to the institution system, recommendations to individual students, the concentration of personal data, responsibility, influence on work, data privacy, and ownership of the data-feeding algorithms". An implementation may require extended time for practical use besides authorisation and bureaucratic services. AI implementation may be costly due to the need for more tech-savvy people.

AI-Based Assessments and Academic integrity

Regarding the application of AI in assessments, respondents believe that AI will enable academics to abandon manual marking and track students’ academic success more technically and intelligently than traditional methods. P2 "AI can deliver situational judgment tests by engaging candidates in sincere chatbot-style discussions." AI can assess candidates' situational judgment using chatbot-style discussions. AI should be used for the assessments as there are no adverse effects from implementing AI in HE. AI would increase quality and access but must be guarded, with mechanisms in place to ensure integrity and security. P5 "AI guarantees adaptive testing, interactive assessment, quick results analysis, and prompt intervention." AI training makes users adept at using it, ensuring success. AI can standardise exam scores and save time. AI provides adaptive testing, interactive assessment, fast results analysis, and rapid action. Finally, AI in HE examinations would adapt questions based on learner performance, which would help students learn advisable. The participants added that AI could be influential when implemented in the HE assessment system, as shown in Table 4.

<table>
<thead>
<tr>
<th>Participant</th>
<th>AI Applications for Student Assessment &amp; Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Gradescope automates grading processes, providing detailed feedback. This tool streamlines grading tasks, freeing up instructors’ time to focus on teaching. It offers detailed feedback to students, aiding in their learning process.</td>
</tr>
<tr>
<td>P2</td>
<td>Simio AI-driven simulations for hands-on learning in supply chain management. Simio provides students with practical experiences in supply chain management, allowing them to explore real-world scenarios and understand complex concepts in a dynamic environment.</td>
</tr>
<tr>
<td>P6</td>
<td>Turnitin provides feedback on grammar and plagiarism in student writing. Turnitin helps students improve their writing skills while upholding academic integrity by detecting plagiarism and offering suggestions for grammar and style improvements.</td>
</tr>
<tr>
<td>P7</td>
<td>ProctorU AI-based proctoring solutions for online exams. ProctorU ensures the integrity of online assessments by monitoring students remotely using AI, detecting cheating behaviours, and maintaining the credibility of the assessment process.</td>
</tr>
<tr>
<td>P10</td>
<td>Natural language processing algorithms for evaluating student comprehension. AI is utilised to assess students’ understanding of course materials based on their written responses, allowing instructors to tailor instructional strategies to meet individual learning needs.</td>
</tr>
</tbody>
</table>
Participants’ Recommendations for Effective AI-Based Assessments and Integrity

Despite AI’s effectiveness in HE assessment, participants noted obstacles. Accuracy and integrity, especially on essays, final projects, and theoretical tests. They highlighted data constraints, privacy, security, implementation, algorithm bias, and openness. Technical challenges and submission errors: Moving from regular examinations to AI optimisation may take time. System failure is conceivable without integrity training and management. Students panic and prepare for exams, security is an issue, and hackers receive questions from apps/portals that can lead to dangerous AI. Concerning AI’s role in academic integrity, participants shed light on the following areas summarised in Table 5 below:

Table 5. AI for Ensuring Academic Integrity in HE

<table>
<thead>
<tr>
<th>Negative Perception of AI in HE Integrity</th>
<th>Positive Perception of AI in HE Integrity</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1: &quot;What we have seen during the pandemic is no academic integrity during the sessions during the assessment.&quot;</td>
<td>P4: &quot;Might use AI in specific areas that could be used to follow up on student academic integrity, such as authoring reports or attending assessments.&quot;</td>
</tr>
<tr>
<td>P11: &quot;AI can jeopardise Academic integrity.&quot;</td>
<td>P6: &quot;The mix between the two is incredibly positive because of all its advantages, but it can be used as a cheating tool.&quot;</td>
</tr>
<tr>
<td>P7: &quot;It will play a positive role; for example, it can detect plagiarism quickly and notice submission patterns.&quot;</td>
<td>P8: &quot;AI can be set to protect integrity vigorously but can be liable to attacks. However, if a powerful system and a plan B are in place, things will be more secure.&quot;</td>
</tr>
<tr>
<td>P9: &quot;They must be checked at a prominent level of alert. It would be more neutral. It would just follow the system that has been put in place.&quot;</td>
<td>P10: &quot;AI can help reduce plagiarism issues and violations of academic integrity.&quot;</td>
</tr>
<tr>
<td>P12: &quot;Optimise students’ writing styles to help them in teaching the right potential.&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Although participants agree that AI can be crucial in ensuring academic integrity, AI can face fundamental challenges in securing academic integrity in HE. AI can lead to fear, double standards, personal relationships, formal systems, and power corruption that hinder academic integrity. Thus, a malfunction or hack might be a problem. Besides, implementation hiccups, insecure virtual environments, invisibility, and users’ beliefs that AI is contrived and inaccurate could lead to academic dishonesty. Therefore, the delayed AI implementation is informed. Proper staff training with a mix of virtual secure codes, passwords, systems, material keys, files, and permissions would make attacks and dishonesty less severe and more accessible to check. Besides, a sustained AI evaluation is essential.

Participants believe that AI can revolutionise the assessment process by enabling automated marking, tracking academic success, and enhancing the quality and accessibility of assessments. It can offer adaptive testing, interactive assessment, and quick results analysis, as emphasised by P5.

However, challenges related to integrity, accuracy, data privacy, and security are paramount. Ensuring a secure and efficient AI-based assessment system requires substantial training, robust security measures, and a mix of virtual and physical safeguards.

AI and Ethical Concerns in HE

Regarding AI and ethics in HE, participants perceive that AI implementation can be both ethical and unethical, as summarised in Table 6 below:

Table 6. AI and Ethics in HE

<table>
<thead>
<tr>
<th>Participant</th>
<th>The Ethical Side of AI</th>
<th>The Unethical Side of AI</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2</td>
<td>Simulators will not harm or impact human resources, aligning efficiently with HEI requirements.</td>
<td>Ethical concerns extend beyond data collection for espionage, including online and offline behaviour manipulation.</td>
</tr>
<tr>
<td>P5</td>
<td>AI will play a positive role, enhancing performance in higher institutions and aiding in implementing and assessing ethics.</td>
<td>Privacy violations through face scanning and surveillance cameras.</td>
</tr>
<tr>
<td>P3</td>
<td>Less human intervention could reduce discrimination chances.</td>
<td>The lack of ethical policies may lead to AI’s unethical use in HE.</td>
</tr>
</tbody>
</table>
Concerning the potential ethical concerns posed by using AI in HE, the participants found the following issues: transparency and accountability. Finding and addressing bias and discrimination issues is more difficult when there is a need for more transparency. For example, they rely too heavily on AI instead of their judgment. Staff training, dishonesty, and deep fakes are challenging to manage and check (a person in charge of storage or specific measures may be motivated to cause a leak). Data privacy and security pose immense ethical challenges to AI in HE. Humans can only sometimes understand AI’s conclusions. AI is not neutral: AI-based decisions may involve errors, discriminatory outcomes, and intrinsic or added bias—surveillance techniques for data collecting and court user confidentiality.

**Recommendation for Ethical AI-Based Integrity**

Participants suggested that the following ethical considerations for implementing AI in HE involve several vital steps. *Raising awareness and repeatedly testing AI before implementing it* ensures that it aligns with educational standards and ethical principles. *Administrators, personnel, and students must be trained* to utilise AI tools while maintaining ethical standards effectively (P4, P6). *Exposure to resources, security keys, and passwords must not occur due to internal human or technical errors (P8).* Therefore, combining *security measures and advanced technologies* is essential to minimise risks (P3). *Additionally, users engaging with AI technology must be provided with warranties and insurance coverage to protect against unforeseen liabilities (P7).* Finally, *teaching AI ethics and implementing moral policies* are vital to safeguarding individual privacy and maintaining trust within the academic community (P1).

Implementing AI in HE raises ethical concerns, offering the potential to enhance performance, uphold ethical standards, and ensure academic integrity. However, it also introduces risks associated with misuse, transparency, bias, privacy, and security. The ethical use of AI should prioritise the reduction of discrimination, the promotion of transparency, and the protection of privacy. *Educati ng users on AI ethics and integrating ethical policies are essential for the responsible use of AI in HE, as argued by P1. Our study emphasises AI’s significant potential and challenges, underscoring the critical importance of ethical considerations and robust policies to harness AI’s educational benefits.*

**Discussions**

This study offers fresh insights into the multifaceted impact of AI in HE, focusing on its transformative potential across various domains such as student admissions, teaching and learning, academic integrity, and ethical considerations (McLennan et al., 2022). The research provides a comprehensive understanding of how AI streamlines administrative tasks, enhances student learning experiences, and addresses ethical challenges (Kaur et al., 2022). By shedding light on AI’s potential to improve assessment systems and uphold academic integrity, these findings contribute to a deeper comprehension of AI’s role in HE, offering valuable insights for educators, administrators, and policymakers.

The study’s findings resonate with existing literature, particularly regarding AI’s influence on student admissions and academic support (Lünich et al., 2023; Sarraf et al., 2021). However, it also reflects positive and negative perceptions of AI integration in HE. Positive views may stem from optimism about AI’s potential to enhance educational experiences and streamline processes. However, negative perceptions may arise from concerns about privacy violations, ethical implications, financial costs, and technical challenges associated with AI implementation.

This research makes a notable contribution by addressing ethical challenges associated with AI implementation (McLennan et al., 2022). While previous studies have discussed AI’s benefits and challenges, this study delves deeper into ethical considerations, emphasising the importance of awareness, training, and ethical policies to ensure responsible AI use. The study provides valuable insights by focusing on ethics, complementing existing literature on AI in HE.

Moreover, the study underscores the significance of ethical guidelines and education to address concerns about transparency, bias, and privacy in AI applications (Kaur et al., 2022). By reaffirming AI’s transformative potential in HE while emphasising the need for responsible AI integration and robust ethical policies, the study advances our understanding of AI’s role in enhancing learning quality and accessibility in educational settings.

Furthermore, the study highlights the widespread adoption of AI-based teaching during the pandemic, indicating a growing trend towards online and AI-driven education. With AI in education topping $1 billion in 2020 and expected to grow substantially, institutions stand to benefit from innovations that improve teaching efficacy, reduce errors, and provide personalised learning experiences. Integrating AI into HE promises to enhance learning outcomes and increase institutional accessibility and popularity.

**Table 7. Continued**

<table>
<thead>
<tr>
<th>Participant</th>
<th>The Ethical Side of AI</th>
<th>The Unethical Side of AI</th>
</tr>
</thead>
<tbody>
<tr>
<td>P7</td>
<td>AI can demonstrate the maintenance of ethical practices and adherence to moral codes by human participants.</td>
<td>Students may exploit AI for academic dishonesty, using summarising, paraphrasing, and assignment writing applications.</td>
</tr>
<tr>
<td>P6</td>
<td>Students will have reduced opportunities for academic integrity violations.</td>
<td></td>
</tr>
</tbody>
</table>

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**Participants**

- **P1**: Emphasises the need for robust ethical policies and increased transparency in AI applications.
- **P2**: Highlights the importance of user training and awareness.
- **P3**: Stresses the significance of maintaining data privacy and security.
- **P4**: Advocates for the integration of AI tools while ensuring ethical standards.
- **P5**: Explores the potential of AI in enhancing academic integrity while addressing ethical concerns.
- **P6**: Discusses the challenges posed by AI in HE, particularly in terms of transparency and accountability.
- **P7**: Focuses on the role of AI in improving student learning experiences and academic integrity.
- **P8**: Examines the potential of AI in administrative tasks, emphasising the importance of ethical considerations.

**Findings**

- **Ethical Side of AI**
  - AI can transform teaching and learning experiences.
  - Enhances academic integrity through transparent and accountable processes.
  - Provides personalized learning experiences.
- **Unethical Side of AI**
  - May lead to academic dishonesty.
  - Risks associated with bias, discrimination, and data privacy violations.
  - Challenges in maintaining transparency and accountability.

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**Recommendations**

1. **Ethical Policies:** Implement comprehensive ethical policies to ensure responsible AI use in HE.
2. **User Training:** Educate users on AI ethics and privacy implications.
3. **Data Security:** Prioritise data privacy and security measures.
4. **Transparency:** Foster transparency in AI applications to build trust.
5. **Ethical Guidelines:** Develop and enforce ethical guidelines for AI applications in HE.

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**Further Studies**

- Explore the long-term impacts of AI on HE systems and governance.
- Investigate the interplay between ethical considerations and technological advancements.
- Compare AI outcomes across different HE contexts to address regional differences.

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**Conclusion**

This study offers fresh insights into the multifaceted impact of AI in HE, focusing on its transformative potential across various domains such as student admissions, teaching and learning, academic integrity, and ethical considerations. It underscores the need for responsible AI integration and robust ethical policies, highlighting the importance of ethical considerations and robust policies to harness AI’s educational benefits.
AI can add validity and reliability to testing, as noted by Participant P14. AI can make assessment design more effective and up to the sought norms, according to participant P15. Additionally, AI can make assessments available to a larger population of students, as highlighted by Participant P16. Moreover, participant P17 mentions that AI-based assessments will be visible to check authenticity nationally and worldwide. Overall, these points, expressed by participants P14, P15, P16, and P17, highlight the transformative potential of AI in enhancing the assessment process in education.

Conclusion

This study examined the impact of AI on various aspects of HE, such as student admissions, pedagogy, assessments, academic integrity, and ethical considerations. The findings, based on qualitative interviews with 13 AI education experts, revealed that AI could enhance the quality and accessibility of learning by simplifying administrative tasks, personalising learning experiences, and providing reliable and unbiased assessment systems. However, the study also identified several challenges and limitations that need to be addressed in future research and practice, such as resistance to AI implementation, inadequate infrastructure, ethical concerns, and potential misuse of AI technologies. Moreover, the study highlighted the importance of educating and collaborating with stakeholders, including faculty, staff, and students, to ensure AI's responsible and effective integration in HE. By providing comprehensive insights into the implications of AI for HE, this study contributes to the existing literature. It advances the understanding of how AI can transform educational practices and policies. Future research should further explore the long-term effects and sustainability of AI integration and develop robust ethical frameworks and safeguards to guide its implementation. This study concludes with a call to action for HE institutions and policymakers to leverage AI to improve learning outcomes and opportunities while upholding ethical standards in educational settings.

Recommendations

This study presents targeted suggestions for overcoming the challenges identified in AI implementation within HE. Here is a simplified, clarified, and professional summary of the recommendations, incorporating a focus on future research:

First, using AI to streamline administrative processes, such as student admissions, saves time and resources. Research into developing efficient AI tools for these tasks is recommended.

Second, personalising learning experiences with AI necessitates innovative research into its integration within teaching methods and curriculum planning.

Third, prioritising ethical considerations in AI usage ensures fairness, transparency, and accountability. Investigating ethical training programmes and establishing clear AI use guidelines are essential.

Fourth, investing in AI-driven assessment systems that are reliable, unbiased, and aligned with educational objectives is advised. Future studies should address biases in data and algorithmic decision-making.

Fifth, educating stakeholders, including faculty, staff, and students, about AI's implications for HE is crucial. It is recommended that practical training sessions and workshops be developed to enhance understanding of AI technologies.

Sixth, promoting collaboration among educators, administrators, policymakers, and researchers to share best practices and encourage innovation in AI use is essential. Research into mechanisms for enhancing such collaboration can help maximise AI's benefits while ensuring its ethical and responsible use.

By following these recommendations, universities can address the complexities of AI in HE, promoting an environment of fairness, transparency, and responsibility. These steps also advance research in this field, addressing the challenges identified in this study and enriching the academic dialogue with innovative solutions for AI implementation in educational settings.

Limitations

Clear limitations encompass challenges associated with resistance to AI implementation, inadequate infrastructure, ethical concerns, and potential misuse of AI technologies. However, these are only some of the limitations that should be considered. For instance, the specific context in which this study was conducted, such as the institutional environment or cultural factors, could also pose limitations. Additionally, the participants' diverse experiences and familiarity with AI may influence the generalisability of the findings. Therefore, future research should address the identified challenges and thoroughly explore these broader limitations to ensure a comprehensive understanding of the implications of AI in HE.

Data Availability

Access to the data is available upon request.

Declaration of Conflicting Interests

The author has disclosed no potential conflicts of interest regarding this article's research, authorship, and publication.
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**Authorship contribution statement**

Slimi: The author of the paper as part of PhD in education at Deusto University. Villarejo: the reviewer of the paper and supervisor.

**References**


