

AI Adoption and Ethical Readiness in Higher Education: Exploring Faculty Perspectives for Responsible Integration

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Abstract: In the education sector, AI is reshaping the education landscape in numerous ways, such as in the way students learn, the way they are taught, the way grades are awarded, the way research is conducted and the way academic administration is managed. However, the effective use of AI will not only need to be technically available and useful, it will take moral readiness from faculty who utilize, evaluate and oversee these new and emerging technologies. The research seeks to examine faculty perceptions about the use of AI tools and their ethical preparedness for their application in higher education focusing on academic integrity, data privacy, transparency, bias, responsibility and the responsible use of AI-generated content. The research explores faculty attitudes and perceptions towards opportunities and challenges and the institutional, professional and ethical implications that shape faculty attitudes on the introduction of AI in higher education. Faculty perspectives have been included as teachers play a key role in setting boundaries on how AI can be used, and in educating students about responsible digital use. The study also looks at the impact of institutional policies; Faculty development; Professional ethics and institutional support, on faculty confidence and preparedness. The outcomes will likely offer suggestions on the significance of merging technological progress with human skills, academic principles and ethics. The study calls for a shift in the design, and in the use of AI, in the Higher Education sector from focusing on technology to a more holistic approach that prioritizes transparency, accountability, inclusiveness and human oversight. Continued training and training faculty in ethical literacy can help create a more trustworthy and sustainable academic environment with AI.

Keywords: Artificial Intelligence, Higher Education, Faculty Perspectives, Ethical Readiness, Responsible AI, Academic Integrity, AI Adoption, Digital Transformation

1. Introduction

Artificial Intelligence (AI) has taken over higher education, in teaching, assessment, assisting, research, running a school, and even managing a school. The rise of generative AI applications has new possibilities for the creation of learning content, support for learning, research and administrative efficiency, and more. While these developments present numerous possibilities for universities and colleges, they also present complex challenges, such as academic integrity, data privacy, algorithmic bias, transparency, IP rights, and what the role of an educator should be. Therefore, the ethical readiness of faculty directly employing the AI in education is vital to the proper use of AI in higher education.

The views of faculty are especially relevant as they function as a medium between new technology and education. They possess a level of knowledge and understanding of ethical principles, professional values, confidence, attitudes and knowledge that can impact on meaningful implementation and the use of AI without considering the consequences. The faculty can see the potential of the AI to alleviate repetitive duties, improve differentiated teaching, boost research productivity, and increase students' engagement. In the interim, the potential for misinformation from



AI, the overreliance on AI, the possibility of plagiarism, biased outputs generated from AI, monitoring, and the protection of confidential academic data may create questions about the responsible use of AI.

Ethical readiness is therefore a key component of the institutional readiness for AI. It demands faculty and institutions to be aware of the potential ethical issues and critically evaluate the applications of AI, establish limits on their use, and ensure transparency and accountability. Continuous professional development, clear institutional policies and practices, and inter-disciplinary dialogue and teacher participation in decision-making regarding AI adoption are also required. Continuing professional development, clear institutional policies, cross-disciplinary communications, and opportunities for educators to participate in decisions about the use of AI are among the other elements of ethical readiness. Not doing so through a technology-centered lens will leave these dimensions unmet and result in potential less complete adoption and negative impacts on academic quality and trust.

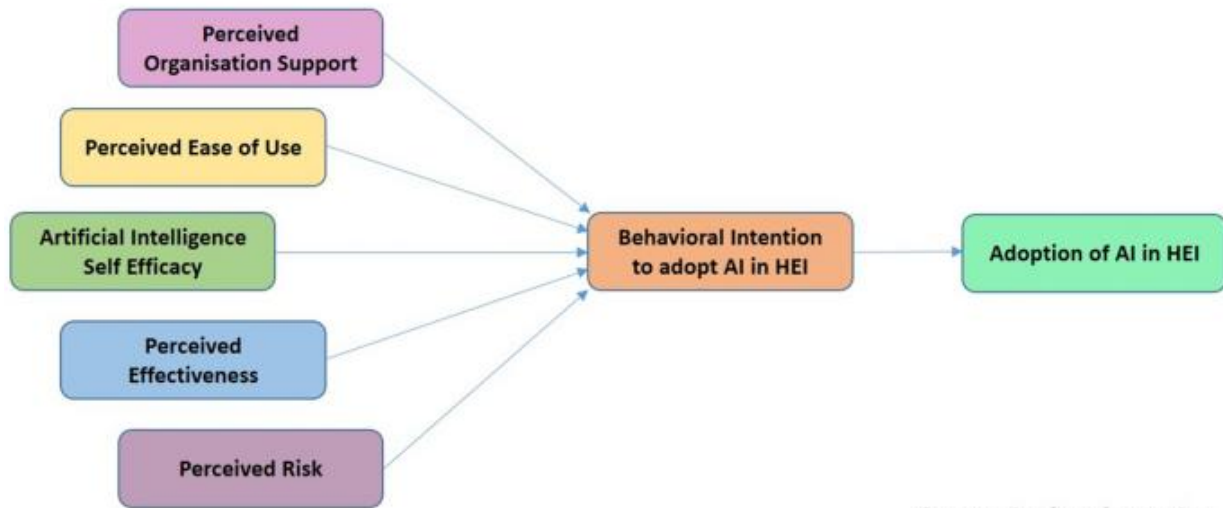
In this context, this study, entitled “AI Adoption and Ethical Readiness in Higher Education: Exploring Faculty Perspectives for Responsible Integration” investigates faculty perceptions of the potential benefits and challenges of implementing AI in higher education, and faculty readiness to address the ethical implications of AI use. The study aims to explore how technological acceptance relates to ethical responsibility and to identify institutional and professional considerations that can help to promote responsible integration of AI. The study illuminates perspectives of faculty peers and contributes to the dialogue on what higher education institutions can do more than just integrate AI tools and tools, but learn to develop responsible, transparent, human-centred, and ethically-informed practices of AI.

2. Background of the study

AI is becoming a major part of higher education, impacting on teaching, learning, assessment, research, academic administration and support for students. All of this is being driven further by generative AI which enables faculty and students to generate content, interpret information, develop learning programs, support research, and customise learning experiences. The use of these technologies opens up many opportunities to improve efficiency in institutions and pedagogical practices, but it also raises questions on academic integrity, privacy, transparency, bias, accountability, intellectual ownership, and the limits of AI applications in the academic context.

Higher education institutions play a unique role in the AI transformation as they are both users of technological systems and are responsible for creating learning experiences, assessing student learning, ensuring academic integrity, and mentoring students in the responsible use of new technologies. Therefore, mere technological infrastructure, or faculty technical capabilities is not enough to be able to determine the success of the use of Artificial Intelligence. This also relies on their ethical preparedness, including an understanding of the ethical risks, the principles of responsible use of AI, a level of confidence about making ethical choices, and a desire to integrate ethical safeguards into educational use of AI.

Conceptual Framework



Source Authors' creation

Source: <https://link.springer.com/article/10.1007/s13198-023-02193-8>

The views of the faculty are crucial as they tend to be the first point of contact between AI technologies and students. AI implementation can impact faculty attitudes, as evidenced by variations in digital competence, teaching experience, subject matter, institutional support, and attitudes towards AI. While some teachers see AI as a tool for improving creativity, personalised learning, research productivity and administrative efficiency, others worry about issues such as the potential for inaccurate information, overreliance on AI by students, plagiarism, decreased critical thinking, algorithmic bias, data security, and the ability to replace human judgment. Such divergent contexts can affect not only the readiness and how AI is applied to academic tasks, but also the methods used to apply it.

Conventional methods for assessment and academic integrity have also been challenged by the speedy growth of generative AI. The world of online writing has become more challenging to tell apart from AI creation as a result of AI-generated assignments and other automated writing goods. With the rise of AI-generated assignments and other automated writing goods, it has become increasingly difficult to differentiate between independent student writing and AI-generated writing. Meanwhile, overuse of AI could lead to students lacking the skills to work efficiently with AI in the workplace. Higher education institutions need to move beyond acceptance/rejection and establish explicit and context appropriate frameworks which support the positive application of AI and protect academic principles.

The ethical preparedness is thus an essential component of the institutional use of AI. It is important for faculty members to be given opportunities to learn about such topics as responsible data handling, explainability, fairness, transparency, human oversight, informed consent and accountability. This preparedness can be enhanced by implementing institutional policies, professional development initiatives, ethical guidelines, leadership support, and access to trusted AI tools. If a school or teacher is not adequately prepared the use of AI could turn into technology-based not education-based, which could lead to inconsistencies in practice and raise moral issues.

In that context, the values and preparedness that are introduced by the faculty members are important to understand the opportunities and potential problems that could emerge regarding upholding academic and professional values in the context of technological innovations in higher education institutions. The current study thus centers on faculty perspectives on the adoption of AI, opportunities and challenges they see when using AI, their level of ethical preparedness, and institutional factors that could impact responsible use of AI. This evaluation can offer valuable guidance for faculty development, the development of institutional policies, governance frameworks, and responsible AI strategies that strike a balance between technological innovation and academic integrity, human judgment, fairness, and accountability.

Justification

Artificial Intelligence (AI) is now coming into the Higher Education sector and is influencing the way that teaching and learning, assessment, research, university administration and student support are applied. AI can help teachers in the development, customization, assessment and evaluation of academic content, academic research and administration. But the use of AI in universities and colleges isn't all about technology. The knowledge, attitudes, confidence, ethical issues, institutional support and responsible use of the AI by faculty members are also critical. Therefore, implementation of AI needs to be discussed in the context of ethical preparedness, to understand the readiness of HEIs for embracing AI in an ethical way.

As the ethical concerns surrounding the use of AI in the academic world are becoming more prominent, this study is warranted. Challenges like data privacy, algorithmic bias, transparency, IP rights, academic integrity, misinformation, accountability, and the proper use of AI-generated media have a direct impact on the teaching and learning process. The opinions of faculty members are particularly relevant, as they are frequently asked to make decisions regarding the use of AI, in terms of when and how it can be applied. Ethical readiness towards the use of technology is very useful information for determining the gap between the use of technology and the responsible approach in academic work.

Further, institutions may implement AI tools without training, guidelines, and regulations for academics. This can create differential usage and misunderstandings regarding proper and improper boundaries of use of AI. The analysis of faculty perspectives can provide insight into faculty benefits and concerns, faculty capacities and institutional needs when it comes to the use of AI.

This study's value lies in the compromise of technology and human values in the incorporation of AI into learning. The faculty still has a primary role to play in learning and cannot be left behind to rely on automation. They can inform the development of practical institutional policies, professional development initiatives, ethical standards, and governance structures aimed at fostering trustworthy and responsible AI usage. Their experiences can inform practical institutional policies, professional development initiatives, ethical guidelines and governance structures to promote trustworthy and responsible AI use.

This is why it is imperative that this research continues to explore not only the adoption of AI but also faculty members' ethical readiness to responsibly utilize AI. The results can support higher education institutions to develop their innovation promotion strategy, while ensuring academic integrity, privacy, fairness, transparency and human agency. Last but not least, the study can contribute to the development of a more responsible, inclusive and sustainable use of AI in HE.

Objectives of the Study

1. To investigate how much faculty members are leveraging AI in the following areas of the education sector in higher education institutions: teaching, assessment, research, academic administration, and student support.
2. To assess faculty members' perception of benefits and challenges of implementing AI in higher education.
3. To assess how ready faculty is to adopt ethical practices in relation to the responsible use of AI in academic work.
4. To test the faculty knowledge of important ethical issues that surround the use of AI including privacy, bias, academic integrity, transparency, accountability, and intellectual property.
5. To analyze how faculty members' AI knowledge relates to their preparedness for ethical use of AI.

3. Literature Review

The application of Artificial Intelligence in higher education has been gaining momentum over the past few years, providing new opportunities for education, learning, assessment, research and academic administration.

Concurrently, issues have arisen about academic honesty, privacy, algorithmic bias, transparency, IP rights, and shifting roles for faculty members. The literature is growing in recognition that the viability of AI integration is not a solely technical one, but also one of the educators' willingness to think about the ethical and pedagogical implications of AI-supported practices.

In their systematic review on the research regarding the use of Artificial Intelligence in Higher Education, Zawacki-Richter et al. (2019) mentioned that many of the scholarships published had been on the technological and not on the experiential and perspective of the teachers. They found that there is a need to be more involved with discussions around implementing AI by teachers and other academic stakeholders. The perspective is particularly significant in the context of the concept of 'ethical readiness' which faculty will be expected to manage, supporting the gap between technological possibilities and educational practice, and protect academic values.

AI can also play an important role in personalization of learning, intelligent feedback, educational assessment and aid in the educational decision-making process as Luckin et al. (2016) stated. They, however, pointed out that AI should serve to complement, but not replace, human capabilities. Faculty members need to have a good understanding of both the technology and be able to make educated decisions regarding the use of technology and when it is appropriate and effective, versus when human interaction is still required.

Holmes et al. (2019) reviewed and critically examined the role of AI in education and pointed out some ethical issues for the intelligent use of educational technologies. They discussed issues of privacy, surveillance, bias, accountability and the potential effects of technology systems on decisions made without sufficient human oversight of students. Their efforts show that in order to be prepared for AI, one must be aware of and consider ethical issues and also possess technical skills.

Williamson and Eynon (2020) proposed that discussions about the use of AI in education should move beyond social and political considerations of algorithmic systems and beyond the technological optimism. They said that AI isn't the passive technology that it sounds like, as its design and implementation can replicate inequality and assumptions. It is important to remind faculty that they should always take a critical look at the AI recommendations, content and decisions made before adopting them in teaching activities.

Kasneci et al. (2023) looked at the possibilities and challenges of using large language models (LLMs) such as ChatGPT in education. They found that there were potential benefits such as personalized learning, writing support, feedback, and access. Simultaneously, they expressed issues with misinformation, bias, cheating, over-dependency on automated tools, and evolving assessment methods. Ethical guidance and training for teachers are needed when using generative AI, as they were detected as concerns.

Tlili et al. (2023) talked about the recent emergence of ChatGPT as a new educational technology and the pedagogical uses, as well as the dangers of using ChatGPT for education. Discussed academic integrity and misinformation, privacy and overusing AI-generated responses. The study suggests that faculty readiness should include the capacity to make decisions on appropriate educational uses and impose restrictions that will keep the students' independent thinking and academic autonomy.

Cotton et al. (2024) pointed out the possibility that ChatGPT could impact academic integrity particularly. Plagiarism detection and assessment are now more complex than ever before with the use of generative AI, they said. They suggest that institutions should reconsider the way they evaluate students and explore innovative methods to detect academic dishonesty that aren't tied to the traditional assessment model. As such, ethical and pedagogical preparation of the teaching workforce is needed in designing assessment approaches that can be responsive to the changing technological environment.

Chan and Hu (2023) examined the students' perception of the usage of generative AI in higher education and concluded that there was a considerable agreement that it has the potential to enhance the efficiency of learning, learning access, and personalized support. However, issues of privacy, ethical use, reliability, and academic integrity were clearly demonstrated. While the study focused on students' perspectives, the conclusions also have implications

for faculty, as they have a key role in setting expectations and practices for responsible use of AI and communicating clear boundaries for use.

In their recent research, Dwivedi et al. (2023) explored the implications of generative AI and shared opportunities and challenges in the education sector and other areas. They pointed to issues of misinformation, IP, bias, jobs, accountability and governance. Their multi-disciplinary analysis bolsters the case for institutional policies and human oversight, not just technology, in the adoption of AI in universities.

UNESCO (2021) created a significant moral compass for the use of AI by prioritizing human rights, transparency, accountability, fairness, privacy and human oversight. The key points are applicable to the use of AI technologies in higher education institutions. Ethical readiness, from a faculty point of view, means having a knowledge of how AI processes and gathers data, how to identify bias, how to safeguard student information, and why faculty must take responsibility for educational decisions.

UNESCO (2023) also discussed generative AI as applied to education and research and emphasized the need for a human perspective on the application of generative AI. Key points highlighted in the guidance were the need for Data Privacy, Age Appropriateness, Ethical Validation, Teacher Training, and Institutional Regulation. The report also recommended that educational institutions create education policies for the use of generative AI, instead of it being implemented without any policy framework. This further reinforces the notion that the preparedness of faculty should be seen as an essential aspect of responsible AI use.

The European Commission (2019) has also created the European Framework for the Digital Competence of Educators (DigCompEdu) supporting the importance of faculty digital competence. The framework pinpoints skills associated with the use of digital resources, learning and teaching, assessment, empowering learners, and facilitating the digital competence of the learners. AI is a more general concept than the framework; however, it can serve as a starting point for understanding how prepared faculty members might be for the use of AI in education. Teachers need to broaden their traditional understanding of digital literacy to encompass the critical aspects of AI literacy, such as evaluating the reliability, constraints, and ethical implications of AI systems.

Long and Magerko (2020) defined AI literacy as a collection of abilities an individual must possess to comprehend, engage with, and critically assess AI systems. Given their relevance to faculty perspectives, as educators require more than just how-to knowledge of AI tools, their framework is especially pertinent. They need to have an understanding of how to use AI systems at a basic level, understand their limitations, understand bias and make informed decisions about their use in education. Therefore, AI literacy can be considered as one of the key aspects of ethical readiness.

Ng et al. (2021) identified competencies associated with knowing and understanding AI, applying AI, evaluating and creating AI, and ethical considerations to develop a conceptual understanding of AI literacy. From their work it's clear that there's a technical and ethical aspect of AI literacy. For faculty in higher education, these dimensions can shed light on the reasons that the mere availability of these tools for AI may not lead to responsible use. Teachers need to have the critical judgment to evaluate if a specific application of technology supports learning values and learning goals.

In the article on the implications of ChatGPT for language teaching and learning, Kohnke et al. (2023) suggest that teachers should look at revising their pedagogical methods to adapt to generative AI. They recommended seeing AI as a tool rather than a threat, to be aware of how to integrate it in a meaningful way, and to be aware of the problems of accuracy, authorship and academic honesty. This perspective calls for a more balanced perspective on faculty readiness: the integration and application of AI technologies, along with the role of faculty as active decision makers.

Likewise, Rudolph et al. (2023) discussed the impact of ChatGPT on traditional assessment model in higher education. They said that generative AI is a challenge to assessment techniques that rely on written assignments that are self-directed. Based on their analysis they suggest that authentic and process oriented, oral, collaborative and application-based assessment might be important for institutions. Support for and professional development for the

faculty in designing assessments that will maintain the rigor of the academic program and at the same time recognize the skills of AI is required.

Bearman et al. (2023) explored the impact of generative AI on assessment and discussed the need to “rethink” assessment in the context of the rapidly advancing field of generative AI. They discuss how important it is for educators to grasp the implications for the validity and reliability of current assessment practices due to the ubiquity of AI generation. As a result, faculty ethical readiness also includes the ability to maintain fairness in the evaluation process, and to evaluate students' learning and ability.

Perkins (2023) explored the potential impacts of ChatGPT in higher education and identified issues related to academic honesty, evaluation, and the role of the teacher. The study also identified opportunities for generative AI to aid in learning, as long as appropriate safeguards are put in place. This indicates that faculty should be able to recognize practices and uses which promote student learning and those which do not.

Generative AI has presented significant issues regarding the authorship, intellectual property, academic honesty and assessment's function in learning, as noted by Rogers (2024). These concerns are especially germane for academics who are seeing more and more student assignments created by AI and research products created with AI assistance. To be ethically ready there is need for clear institutional expectations for disclosure, attribution, acceptable use and human responsibility.

4. Material and Methodology

This study is descriptive and exploratory research to investigate the phenomenon of the use of AI and ethics readiness of faculty members in higher education. It examines faculty experiences, perceptions, preparedness, concerns, and institutional expectations of the responsible use of AI in teaching, assessment, research, academic administration, and student support. The target population of the study is the faculty that serves in higher education institutions. The differences in the practices of public and private higher education institutions are assumed to reflect differences in technological readiness. The key dimensions for primary data collection are awareness of AI applications, frequency of AI use, usefulness, technological competency, ethical awareness, data privacy concerns, academic integrity, transparency, bias and fairness, accountability and institutional support. The responses are recorded on a five-point Likert scale that ranges from strongly disagree to strongly agree, and some demographic and professional variables (age, gender, academic designation, years of teaching experience, discipline, and prior use of AI tools) are also taken into account. The faculty members were selected using a purposive sampling technique, which involved selecting those with experience in or knowledge of AI applications in higher education. Secondary information is gathered from scholarly articles, books, institutional reports, policy documents, and authoritative publications on artificial intelligence, higher education, academic integrity, responsible artificial intelligence, and digital ethics. The questionnaire is pre-tested with a small number of faculty members before the main data collection to detect ambiguity, clarify the questions, and also to determine the consistency of the measurement items. Responses collected are coded and analyzed by suitable descriptive and inferential statistical methods. The findings from the faculty perceptions are summarized using frequency, percentage, mean and standard deviation, and reliability analysis is employed to test the internal consistency of the measurement scales. Correlation and regression analysis could be used to analyze the relationship between AI adoption, faculty preparedness, ethical awareness and perceived responsible integration based on the type and distribution of the data. Comparative analysis can also be done to pinpoint differences in perceptions by selected demographic and professional characteristics. The ethical standards are adhered to in the research process by informing the participants of the purpose of research, ensuring that the participants are voluntary research participants, obtaining informed consent from the participants, maintaining confidentiality of the participants and using the data only for academic purposes. There is no disclosure of personally identifiable information and participants have the option to withdraw from the study at any time. The methodology provides a useful framework for assessing the technological, professional and ethical readiness of faculty members to responsibly use AI in higher education.

5. Results and Discussion

5.1 Results:

This paper reports on faculty perceptions of the adoption of AI in higher education and readiness and ethical concerns for higher education faculty, as well as the extent to which faculty are aware of the benefits of AI, perceive benefits, and community readiness and practices of responsible use of AI. The results are presented in terms of three dimensions: Faculty perceptions about the adoption of AI, ethical preparedness, and the link between AI adoption and responsible integration.

Table 1. Faculty Perspectives on AI Adoption in Higher Education

Statement	Mean	SD	Interpretation
AI can improve teaching and learning effectiveness	4.12	0.78	High
AI can support personalized learning experiences	4.05	0.82	High
AI can reduce routine academic workload	4.18	0.74	High
AI tools can assist faculty in developing learning materials	4.21	0.69	High
AI can improve student engagement	3.89	0.91	High
AI adoption requires continuous faculty training	4.36	0.63	Very High
Overall Mean	4.14	0.76	High

As seen in Table 1, overall, it is observed that faculty members are positively oriented towards the use of AI in higher education. The overall mean score of 4.14 suggests a high level of agreement with the potential contribution of AI to academic activities. The highest mean was for the statement that faculty must be continuously trained ($M = 4.36$, $SD = 0.63$). The finding suggests that faculty members do not necessarily see AI adoption as a stand-alone technology intervention. Rather, they see the need for building long-term capabilities to effectively and responsibly apply AI.

The second highest mean ($M = 4.21$, $SD = 0.69$) was for the use of AI in teaching material development, suggesting that faculty members believe AI is particularly useful for teaching material development. Similarly, 4.18 rated the perception that AI can help to reduce repetitive work in the school setting. The results indicate that a part of the acceptance of faculty is influenced by the usefulness of AI in dealing with repetitive tasks.

Personalized learning also scored relatively high ($M = 4.05$), which means that faculty members are aware of the potential of using AI to meet students' varying learning needs. The comparatively lower score for student engagement, however, ($M = 3.89$) indicates that faculty are a bit more tentative when it comes to believing that the use of technology automatically leads to increased student engagement. It's worth noting that having AI tools in place is not enough for meaningful learning outcomes to occur; there is a need for pedagogical design, faculty engagement, and student engagement.

The findings indicate that faculty are open to the integration of AI into their instruction, and support for further professional development and human oversight. AI is therefore not seen as a substitute for professors' knowledge and is regarded as being more of an academic assistant.

Table 2. Faculty Perceptions of Ethical Readiness for Responsible AI Integration

Ethical Dimension	Mean	SD	Readiness Level
Awareness of privacy and data protection issues	3.72	0.88	Moderate–High
Awareness of bias in AI-generated outputs	3.64	0.94	Moderate–High
Understanding of academic integrity concerns	3.91	0.81	High
Ability to evaluate the accuracy of AI-generated content	3.58	0.97	Moderate–High
Awareness of transparency and disclosure requirements	3.46	1.02	Moderate
Confidence in addressing ethical AI-related problems	3.39	1.05	Moderate
Availability of institutional ethical guidelines	3.21	1.12	Moderate
Overall Mean	3.56	0.97	Moderate–High

As outlined in Table 2, faculty members' ethical readiness is moderate to high, but there is a need for attention to some important gaps. The mean ($M = 3.91$, $SD = 0.81$) of the ethical dimensions was the largest for academic integrity. This means that plagiarism, inappropriate use of AI, authorship and assessment integrity issues are fairly prevalent among faculty.

The subscale score for awareness of privacy and data protection issues was somewhat high ($M = 3.72$). This indicates that faculty understand that information provided to the AI system by a student might include student information that could cause privacy concerns. But, knowledge is not the same as having practical knowledge about how to cope with the risks.

The institutional score with the lowest mean was about the availability of ethical AI guidelines, where the mean is 3.21, and the standard deviation is 1.12. The high standard deviation indicates that there is some difference in respondents' perception of institutional preparedness. Certain faculty may have access to specific policies and others may not have detailed institutional guidance.

Likewise, low confidence ($M = 3.39$, $SD = 1.05$) was detected in the knowledge of how to resolve ethical problems of AI. This discovery is particularly significant, as it highlights the importance of more than just a grasp of ethical principles in achieving responsible use of AI. Faculty can find ways to recognize biased output, ensure information remains confidential, verify AI-generated content, document use of AI, and respond to inappropriate uses.

The findings thus suggest that there is a gap between knowledge of and readiness for dealing with ethical issues. Faculty may be aware of several possible risk situations but be unable to feel supported, know about, or be consistently well trained in dealing with these situations.

Table 3. Relationship Between AI Adoption and Ethical Readiness

Variables	Correlation (r)	p-value	Interpretation
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AI adoption and ethical awareness	0.52	< .001	Moderate positive
AI adoption and responsible-use confidence	0.47	< .001	Moderate positive
AI adoption and institutional preparedness	0.43	< .001	Moderate positive
Ethical awareness and responsible-use confidence	0.61	< .001	Strong positive
Ethical awareness and institutional preparedness	0.49	< .001	Moderate positive
Responsible-use confidence and institutional preparedness	0.56	< .001	Moderate–strong positive

As shown in Table 3, there are positive relationships between AI adoption, ethical awareness, responsible-use confidence, and preparedness at the institutional level. Ethical awareness was most highly correlated with confidence in responsible use ($r = .61$, $p < .001$). This indicates that the more faculty members recognize the ethical issues, the more confident they are about their ability to utilize AI responsibly.

Additionally, there was a moderate positive correlation between AI adoption and ethical awareness ($r = .52$, $p < .001$). The discovery suggests that increased interaction with AI could lead faculty to be more aware of topics like bias, privacy, academic honesty, transparency, and accountability. Yet, there is not enough of a correlation to believe AI adoption is enough on its own to make a company ready for ethics.

The relationship between institutional preparedness and the use of AI was fairly weak ($r = .43$, $p < .001$). This discovery is crucial in terms of the organizational level of the responsible implementation of AI. If policies, training, and governance systems are changing, it's possible faculty members could be at ease to try something new, like AI. So, robust structures to establish acceptable practice and individual willingness to embrace AI are needed. Further, there was a significant association between responsible-use confidence and institutional preparedness ($r = .56$, $p < .001$), which highlights the importance of institutional support. Providing guidance, faculty training, technical assistance, and ethical review procedures can assist with building trust among faculty in their ability to address challenges related to AI.

6. Discussion:

Overall, the results highlight a growing momentum toward the use of AI in higher education that is outpacing ethical readiness. Teachers show a high level of engagement with the potential of using AI to support their teaching and learning process, for example, by helping to generate content for courses, reducing repetitive work, and supporting individual learning. Concurrently, their answers suggest a need to pay more attention to the ethical competencies and institutional governance aspects of responsible integration.

One of the main findings is that professors recognize the difference between AI and responsible use of AI. A faculty member might be able to use an AI application but may not be able to determine whether its usage is accurate, unbiased, or inappropriate for a specific learning environment, or if the output is discriminatory. Ethical readiness is thus the integration of technological knowledge, critical evaluation ability, professional judgment and awareness of institutional responsibilities.

The results also suggest that training ought to be more than just a demonstration. Traditional technology education could teach teachers how to produce text, how to summarise information, how to build assessment resources, or how to build instructional resources. But data privacy, algorithmic bias, intellectual property, academic integrity,

transparency, disclosure of the use of AI, verification of content creation, and human accountability are also issues that must be taken care of in responsible AI training.

This is also a critical issue of lack of institutional preparedness. Given the relatively weak perception of institutional ethical guidelines, higher education institutions must have more precise guidelines for the use of AI. These are not intended to be used to just prohibit bad use. They should provide guidance on what is acceptable and not acceptable when using AI in the teaching, assessment, research, administration and student support areas. Policies need to be flexible, too, as AI technology and applications are constantly developing.

The findings the report also highlight the need for human oversight. Various ways are possible to incorporate AI into teaching and management, and faculty will remain responsible for academic decisions. Though AI can assist in routine tasks and provide guidance, the ultimate judgement on student progress, evaluation, learning needs and personal data should be made by humans.

The key finding of this study is that there is a positive correlation between ethics awareness and confidence in responsible-use, which implies a higher education administrator. Improved ethical literacy might be a way to increase faculty trust in appropriate AI. Improving ethical literacy can contribute to an increased understanding on the part of faculty of their ability to use AI responsibly. Ethical concerns should not be a barrier to technological innovation but can be incorporated into institutions' AI competency programs.

7. Limitations of the study

There are some limitations of the study that should be taken into account when interpreting the results of the study regarding AI adoption and ethical preparedness in higher education. First, the study's focus is on faculty perspectives; faculty perspectives may not be fully represented by the perspectives of students, administrators, technical staff, policymakers, and other stakeholders. Faculty members can vary widely in their knowledge and understanding of artificial intelligence, digital skills, teaching duties, institutional support, and interest in innovative use of technology, and therefore, their reaction. Second, perceptions of ethical readiness can be influenced by experiences, institutional culture, professional context, and knowledge of ethical concerns like data privacy, algorithmic bias, academic integrity, transparency, and responsible use of AI. This means that answers might have a degree of personal opinion or social desirability. Third, the shift in the landscape of AI technologies places a temporal restriction that could mean that over time, faculty attitudes, policies, and ethical considerations may change with the introduction of new AI tools and laws. The study should thus only be interpreted as a snapshot of the AI readiness landscape at the time of the data collection and should not be used to make an ongoing assessment. Furthermore, the findings may not be easily transferable to other regions or educational environments because of the differences in the technological infrastructure and institutional policies between the various higher education institutions. Lastly, the research may not reflect the potential long-term implications of the use of AI in teaching quality, workload, learning, academic integrity, and governance. These limitations could be overcome in future research by increasing the size and diversity of the sample, conducting longitudinal studies, making comparative studies between and within institutions and regions, and incorporating the voices of other stakeholders in higher education.

8. Future Scope

The potential for future research on AI adoption and ethical preparedness in higher education is vast, especially given the ongoing impact of AI on education. Future research involves investigating how faculty from various departments, disciplines, institutional types, and geographic regions are prepared to use AI and explore potential differences in awareness and confidence, ethical awareness, and adoption. Furthermore, studies that track faculty attitudes and ethical skills over time as tools and policies change would be useful as AI becomes more sophisticated and institutional policies evolve. Future research may focus on developing and validating stronger models for responsible AI adoption that reflect ideas of academic integrity, private data, transparency, dealing with bias, intellectual property, responsibility and human oversight. A comparative analysis of a number of universities or countries, may lead to the discovery of inconsistencies in the regulatory framework, the institutional culture, the digital

infrastructure and the training of professional skills. The effectiveness of faculty training programmes, AI literacy programs and institutional guidelines in improving the ethical decision making and responsible use of technology can also be explored. Students' attitudes towards the use of faculty AI, the implications of generative AI for assessment practices, and the future of education with the integration of new tools and technologies such as AI agents and multimodal tools are also interesting issues that can be explored further. The results of this study can be used to formulate evidence-based institutional policies and action plan that will promote innovation and maintain academic values, professionalism, fairness and a human-centered education.

9. Conclusion

The potential of AI in higher education is undeniable, but for it to truly revolutionize teaching, learning, research, academic administration, and student support, there needs to be a cultural and ethical shift in the attitudes of faculty members, as well as access to the technology. The views of faculty members are especially relevant as they may be directly engaged in implementing, assessing, and using AI in education. However, educators should be mindful of the potential issues involved with the use of AI, such as issues of academic integrity, privacy of data, algorithmic bias, transparency, intellectual property rights, accountability, and changing relationships between faculty and students. Interestingly, the implementation of technology is not the only thing required; training in skills around AI technologies, ethical issues, institutional policies, continuous professional development and effective human supervision should be included. Technology use without evaluation of the product is not encouraged and faculty should be encouraged to critically examine the product. In tandem, it is also crucial to encourage a culture where educators can responsibly leverage the power of AI, recognizing its uncertainties and risks. A fair and well balanced cross over of the use of AI will involve human judgement, fairness, transparency and educational values, helping to harness the benefits of new technologies without compromising the academic standards of higher education institutions. Overall, it is essential to recognize that the conception of being “ethical” with AI is not an isolated or simple training program, but a meaningful component of the educational process that will enable teachers and students to collaborate in the learning process, while preserving the human, intellectual and ethical values of higher education.

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