

Ethical Adoption of Artificial Intelligence in Higher Education: Balancing Innovation, Inclusivity, and Social Responsibility

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Abstract: This study set out to explore how AI can be adopted ethically in higher education, aiming to find the right balance between innovation, inclusivity, and social responsibility. The study was carried out in Lagos State, Nigeria. A descriptive survey research design was adopted, with a multi-stage sampling technique. A sample size of 328 was drawn, which entails 103 academic staff, 130 students, and 95 university administrators/ICT personnel. Two research questions and two null hypotheses were formulated to guide the study. A 30-item questionnaire was administered to the respondents with the help of four research assistants. A 5-point rating scale was used. The instruments were subjected to face and content validity by three (3) experts. The internal consistency of the instrument was determined using Cronbach's Alpha, and reliability was determined using Pearson Product-Moment Correlation, yielding a coefficient of 0.78. Data were collected using a structured questionnaire and analyzed using mean, standard deviation, and simple linear regression was used to test the hypotheses at 0.05 level of significance. The findings revealed that the adoption of ethical AI has a significant influence on innovation and inclusivity in higher education. Respondents agreed that ethical AI enhances personalized learning, innovative teaching practices, creativity, inclusive classroom participation, and overall institutional innovation as indicated by the grand mean of 3.79 (SD = 0.88). The regression analysis further confirmed that ethical AI adoption is a significant predictor of innovation and inclusivity ($\beta = 0.193$, $p < 0.05$). The findings recommend, among others, that Universities and colleges should create clear and comprehensive ethical AI policies that ensure transparency, fairness, accountability, and data privacy in all areas where AI is used, whether in teaching, learning, or administration.

Keywords: Ethical Artificial Intelligence, Higher Education, Innovation, Inclusivity, Social Responsibility.

Introduction

Artificial Intelligence (AI) has become a significant force in higher education, changing the way teaching, learning, research, governance, and management are carried out. Progress in areas such as machine learning, natural language processing, generative AI, predictive analytics, and intelligent tutoring systems has allowed universities to automate repetitive tasks, tailor learning experiences, improve academic support, and increase efficiency (George and Wooden, 2023; Bahroun et al., 2023). These advancements have driven the digital transformation of higher education, offering new opportunities to elevate educational quality, widen access to knowledge, and encourage innovation. As a result, the focus has shifted from debating whether AI should be used to determining how it can be implemented in a responsible, ethical, and sustainable way. The incorporation of AI in higher education has generated a lot of positive outlooks because of its potential to improve teaching methods and institutional performance (Escotet, 2024; Katsamakos et al., 2024; Maqoqa, 2025). AI-powered learning platforms adapt to individual student needs, which helps increase student engagement and academic success. Intelligent assessment tools provide instant feedback and support teaching based on evidence, while AI-driven analytics enhance research productivity through automated literature reviews, data analysis, and knowledge discovery (Ejjami, 2024; Sharma and Vijay Kumar, 2026; Jayaram, et al., 2022). At the institutional level, predictive analytics assists with keeping students enrolled, managing resources efficiently, and making strategic plans, helping AI act as a driver for innovation and resilience in universities.

Despite these advantages, the introduction of AI has raised important ethical issues. Concerns such as algorithmic bias, lack of transparency, accountability, privacy violations, surveillance, academic dishonesty, intellectual property rights, and the role of

human agency have become key areas of focus in AI governance (Al-Kfairy *et al.*, 2024; Jinghui and Zhang, 2025; Cheong, 2024). AI systems trained on biased data may reinforce educational disparities by putting learners from different backgrounds at a disadvantage based on factors such as socioeconomic status, gender, ethnicity, disability, language, or location (Chinta, *et al.*, 2024; Mac Fadden *et al.*, 2024; Roshanaei, 2024). In addition, unclear decisions made by algorithms can reduce transparency and challenge fairness, accountability, and trust among stakeholders. Research by Monib *et al.* (2024) and Ogwueleka (2025) has found that the growing use of generative AI has increased worries about plagiarism, false information, unauthorized content creation, and a decline in critical thinking, prompting institutions to reconsider their assessment methods, lesson plans, and digital skills education, while promoting the ethical use of AI.

Therefore, adopting AI ethically goes beyond managing technological risks and involves balancing innovation with inclusion and social responsibility (Camilleri, 2024). Inclusive AI must ensure that all learners, including those who are disadvantaged or underrepresented, have fair access and meaningful involvement (Varsik and Vosberg, 2024; Bulathwela *et al.*, 2024). AI systems should help reduce digital barriers, assist learners with disabilities, and suit different educational settings. Universities also need to ensure that AI aligns with their mission of advancing knowledge, ethical leadership, social justice, and sustainable development. Thus, responsible AI governance requires clear policies, active involvement of all stakeholders, protection of data privacy, accountability structures, and ongoing ethical monitoring (Díaz Rodríguez *et al.*, 2023; De Almeida *et al.*, 2021). These steps ensure that AI works alongside educators, preserving their primary role in nurturing creativity, critical thinking, empathy, and ethical judgment. On the other hand, international bodies are increasingly calling for AI that is trustworthy and centered on people, emphasizing fairness, transparency, accountability, explainability, privacy, and human control.

However, there are still big differences in how prepared institutions are, their technological infrastructure, and their ability to regulate AI, especially in developing countries (Kim, 2026; Shukla, 2025; Lund *et al.*, 2025; Verma, 2025; Góra-Błaszczkowska and Radhakrishnan, 2026). Moreover, many studies look at innovation, ethics, inclusivity, and governance in isolation rather than as connected parts of responsible AI use. This disconnected approach limits understanding of how higher education institutions can achieve innovation, inclusivity, and social responsibility together. With this in mind, the study looks at the ethical use of AI in higher education by considering innovation, inclusivity, and social responsibility as integrated aspects. It explores how institutions can take advantage of AI's potential while reducing ethical risks, promoting equal access, and strengthening responsible governance.

LITERATURE REVIEW

Concept of Artificial Intelligence in Higher Education

Artificial Intelligence (AI) in higher education uses smart computer systems to improve the functioning of colleges and universities. These systems are designed to think and learn like humans; they can learn new things, solve problems, make decisions, and even understand language. Through AI, universities can automate tasks that used to take a lot of time, such as sorting through documents or answering student inquiries. Artificial Intelligence (AI) is significantly altering the landscape of higher education, influencing teaching methods, administrative functions, and research approaches (Mnguni *et al.*, 2024; Ndlovu *et al.*, 2024). It encompasses a range of technologies such as intelligent tutoring systems and adaptive learning platforms. These AI technologies are transforming how higher education institutions function by offering tailored learning experiences, automating routine administrative tasks, and enabling data-driven decision-making (Dube *et al.*, 2024; Smith *et al.*, 2024). Tools like machine learning, natural language processing, and generative AI support personalized learning for students. For instance, adaptive learning systems can modify lessons according to a student's learning pace and areas of difficulty. Chatbots and virtual assistants are available round the clock to assist students with their queries, while learning analytics can identify students who may be facing challenges, allowing educators to intervene early (Sajja *et al.*, 2025; Fernoagă *et al.*, 2018; Naseer and Khawaja, 2025). Generative AI also supports both students and faculty in creating content, conducting research, and collaborating more efficiently (Nikolopoulou, 2024; Al Naqbi *et al.*, 2025). Beyond the classroom, AI is used in decision-making processes such as admissions, course management, and resource allocation, all based on data rather than assumptions. However, there are challenges associated with AI in education, including issues related to privacy, fairness, transparency, and ensuring equal access to these technologies. Therefore, universities need clear policies and ethical guidelines to regulate the use of AI. As a result, AI is revolutionizing higher education by making teaching, learning, and administrative processes more efficient and innovative (George and Wooden, 2023; Ocen *et al.*, 2025). It is equally crucial to use these powerful tools responsibly to ensure that the benefits are accessible and fair for all.

AI-Driven Innovation in Higher Education

AI-driven innovation in higher education refers to the use of artificial intelligence to transform how colleges and universities deliver instruction, support students, perform research, and manage their operations (George and Wooden, 2023; Saaida, 2023). With tools such as smart tutors, adaptive learning platforms, chatbots, and generative AI, students can receive lessons that are specifically tailored to their needs, while administrative tasks are managed automatically in the background. This enables teachers to focus more on supporting students and provides faster, more personalized feedback. A study by Burger *et al.* (2023) and Xu *et al.* (2021) found that AI also supports researchers by efficiently analyzing large datasets, summarizing findings, and making predictions, thus

accelerating and improving the research process. On the administrative front, AI simplifies processes such as admissions, scheduling, and student support, helping universities operate more smoothly and efficiently. As a result, AI encourages collaboration across disciplines and offers flexible learning opportunities, promoting digital transformation in higher education (Lakshmi *et al.*, 2023; de Bem *et al.*, 2024). However, for these transformations to be successful, universities need robust technological infrastructure, well-trained staff, and clear guidelines to protect privacy, fairness, and honesty. When used responsibly, AI-driven innovations can enhance the effectiveness, adaptability, and future readiness of higher education.

Ethical Principles of Artificial Intelligence

The ethical principles that guide the use of Artificial Intelligence (AI) act as foundational rules to ensure that AI is used in ways that benefit people and avoid harm (Díaz Rodríguez *et al.*, 2023; Floridi *et al.*, 2018). These principles are essential throughout the entire lifecycle of AI development, from the design and creation of AI systems to their application in real-world situations. Their main objective is to protect individual rights and ensure AI is used ethically. Some key principles include fairness, meaning AI should not be biased or discriminatory. Transparency requires that people can understand how AI systems arrive at decisions, rather than having those processes hidden in a “black box” (Thalpage, 2023; Adadi and Berrada, 2018). Accountability ensures that those who develop and deploy AI are held responsible for the actions of their systems (Mensah, 2023; Collina *et al.*, 2023). Privacy and data protection ensure that personal information is managed safely and ethically (Renuka *et al.*, 2025; Sargiotis, 2024; Pina *et al.*, 2024). Other important principles are beneficence and non-maleficence, meaning AI should aim to do good and avoid causing harm. Additionally, human autonomy ensures that people always retain the final say, rather than letting AI make all decisions without oversight. In higher education, adopting these ethical principles helps universities use AI in ways that are inclusive, transparent, and trustworthy (Dabis and Csáki, 2024; Chan, 2023). This not only safeguards academic integrity but also ensures that teaching, research, and university management remain socially responsible and fair.

Ethical Challenges of AI Adoption

The rapid integration of Artificial Intelligence (AI) in colleges and universities has brought several ethical concerns to light. Although AI can improve teaching, learning, and campus management, it also raises issues related to fairness, privacy, and accountability (Chan, 2023; Eden *et al.*, 2024; Mienye and Swart, 2025; Khan *et al.*, 2025). For instance, there is a significant risk that AI systems, if trained on biased or incomplete data, might make decisions that negatively impact certain student groups, such as those from different backgrounds, genders, or with varying abilities. This could affect areas like admissions, grading, and learning support, potentially limiting equal opportunities for all. To mitigate these ethical challenges, universities must regularly inspect their AI systems for bias and use diverse data sets (Chinta *et al.*, 2024; Barnes, 2024; Slimi and Carballido, 2023). Another major concern is the handling of personal and academic data. According to Regan and Jesse (2019) and Kamalov *et al.* (2023), since AI relies heavily on data to customize learning experiences and predict outcomes, institutions must ensure that this information is protected and used responsibly. This involves implementing strict rules around obtaining consent, securely storing data, and complying with privacy regulations. There is also the issue of transparency. Many AI systems operate in ways that are difficult to understand, leading to reduced trust in their decisions and making it harder to determine who is accountable if something goes wrong (Prabhudesai *et al.*, 2023; Buçinca *et al.*, 2021; Chong *et al.*, 2022). To address this, colleges should develop clear ethical guidelines for using AI, educate students and staff on how AI functions, and ensure that humans remain involved in key decisions. Ultimately, the responsible use of AI in higher education relies on maintaining fairness, privacy, and human judgment at its core, so that technology supports and does not undermine the values that universities represent (Symeou *et al.*, 2025; Mahajan, 2025; Coghlan *et al.*, 2021).

Inclusivity and Equity in AI-Enabled Higher Education

Artificial Intelligence (AI) presents promising opportunities to make higher education more inclusive and equitable (Jogezai *et al.*, 2026; Ramkissoon, 2024). With the help of AI-powered tools such as adaptive learning platforms, smart tutors, speech recognition, language translation, and assistive technologies, colleges can better support students from diverse backgrounds (Chopra *et al.*, 2024; Arora *et al.*, 2025). For instance, these tools can tailor lessons for students with disabilities, assist multilingual learners, and support those who may have had fewer educational opportunities. This can help remove barriers and enable more students to succeed. However, there are still significant challenges to making AI accessible for all. Not all students or institutions have access to reliable internet, up-to-date devices, or the digital skills needed to fully benefit from these technologies (Afzal *et al.*, 2023; McCarron and Frydenberg, 2023). This “digital divide” can actually increase inequalities, particularly in less developed regions. Additionally, if AI systems are trained on biased data, they may produce unfair outcomes, such as in admissions or grading, which can disadvantage students from certain groups. To genuinely use AI as a tool for equity, universities must create a level playing field (Long *et al.*, 2024; Roshanaei *et al.*, 2023). This requires investing in improved digital infrastructure, training students and staff to use AI effectively, designing technologies that work for everyone, and regularly monitoring for signs of bias. With these efforts, AI can play a meaningful role in promoting inclusivity and equity in higher education.

Social Responsibility and Responsible AI Governance

Social responsibility and responsible AI governance have become central to the ethical adoption of artificial intelligence (AI) in higher education (Slimi and Carballido, 2023; Tarisayi, 2024). As AI systems increasingly influence teaching, learning, assessment, and institutional decision-making, universities are expected to ensure that the deployment of AI promotes fairness, transparency, accountability, and societal well-being. Responsible AI governance extends beyond regulatory compliance by embedding ethical principles into AI design, implementation, monitoring, and evaluation while protecting the rights and interests of all stakeholders (Papagiannidis *et al.*, 2025; Abbas *et al.*, 2025). Recent studies emphasize that socially responsible AI should reduce algorithmic bias, safeguard data privacy, enhance explainability, and promote equitable access to educational opportunities. Higher education institutions are therefore encouraged to establish governance frameworks that define ethical standards, clarify stakeholder responsibilities, and ensure continuous oversight of AI systems (Chan, 2023; Nguyen *et al.*, 2023). Such frameworks foster public trust, strengthen institutional accountability, and support sustainable digital transformation (Gomes *et al.*, 2025; Jiang and Abdullah, 2026). Furthermore, responsible AI governance requires inclusive participation from educators, students, administrators, policymakers, and technology developers. Collaborative governance ensures that AI systems reflect diverse perspectives, uphold academic integrity, and contribute to the United Nations Sustainable Development Goals (SDGs), particularly those related to quality education, reduced inequalities, and strong institutions (Raman *et al.*, 2025; Nedungadi *et al.*, 2024). Consequently, social responsibility has become a strategic pillar for ensuring that AI innovation delivers educational benefits while minimizing ethical, legal, and societal risks (Jiang and Abdullah, 2026; Papagiannidis *et al.*, 2025).

Benefits of Ethical AI Adoption

The ethical adoption of Artificial Intelligence (AI) in higher education offers significant benefits by ensuring that AI technologies are implemented responsibly, transparently, and inclusively (Ajani *et al.*, 2024; Coman *et al.*, 2026). First, ethical AI enhances trust and accountability among students, educators, and institutional leaders by promoting transparent algorithms and clear decision-making processes, thereby increasing confidence in AI-supported teaching, assessment, and administrative services (Al-Zahrani and Alasmari, 2024; Đerić *et al.*, 2025). Second, ethical AI promotes equity and inclusivity by minimizing algorithmic bias and improving access to personalized learning opportunities for students from diverse backgrounds, including those with disabilities and underrepresented groups. This contributes to more inclusive educational outcomes and reduces disparities in learning experiences (Khan *et al.*, 2025; Maluleke, 2025). Third, responsible AI adoption improves teaching, learning, and institutional efficiency. When governed by ethical principles, AI supports adaptive learning, timely feedback, administrative automation, and evidence-based decision-making while safeguarding academic integrity and protecting sensitive data. These practices enable institutions to innovate without compromising educational quality or stakeholder rights (Khan *et al.*, 2025; Mumtaz *et al.*, 2025). Finally, ethical AI strengthens institutional sustainability and social responsibility by aligning AI implementation with governance frameworks, privacy regulations, and ethical standards. This prepares graduates with AI literacy and ethical competencies while ensuring that technological innovation contributes positively to society and sustainable development (Fernandes *et al.*, 2026; Al-Zahrani and Alasmari, 2024).

Statement of the Problem

Artificial Intelligence (AI) is transforming higher education by improving teaching, learning, assessment, research, and institutional administration. Many higher education institutions continue to deploy AI-driven technologies for adequate transparency, fairness, accountability, data privacy, and human oversight, raising concerns about algorithmic bias, academic integrity, and the protection of students' rights (Nagaraj *et al.*, 2023; Naseer *et al.*, 2024). However, unequal access to AI-enabled technologies and digital infrastructure has widened educational disparities, particularly among students from disadvantaged and underrepresented backgrounds. Institutions face increasing pressure to harness AI-driven innovation while fulfilling their social responsibility to ensure ethical governance, public trust, and sustainable educational development (Allam *et al.*, 2025; Salem and Khalil, 2026). Although existing studies have examined AI adoption, technological innovation, or ethical concerns independently, there remains limited empirical evidence on how higher education institutions can effectively balance innovation, inclusivity, and social responsibility within an integrated ethical AI framework. This gap underscores the need to investigate the ethical adoption of AI in higher education to identify strategies that foster responsible innovation, promote equitable access, and strengthen institutional accountability for sustainable educational transformation.

Purpose of the Study

The purpose of the study was to assess the:

1. Examine the influence of ethical AI adoption on innovation and inclusivity in higher education.
2. Determine the role of ethical AI adoption in promoting social responsibility in higher education institutions.

Research Questions

The following research questions guided the study:

1. What are the influence of ethical AI adoption on innovation and inclusivity in higher education?
2. What is the role of ethical AI adoption in promoting social responsibility in higher education institutions?

Hypotheses

The following hypotheses were formulated to guide the study:

H₀₁: There are no significant differences between the mean responses of Academic Staff, Students, and ICT/University Administrators on Ethical AI adoption on innovation and inclusivity in higher education.

H₀₂: There are no significant differences between the mean responses of Academic Staff, Students, and ICT/University Administrators on Ethical AI adoption in promoting social responsibility in higher education institutions.

Research Methodology

The study was carried out in higher institutions in Lagos State. The study employed a descriptive survey research design. According to Creswell and Creswell (2018), survey research is a quantitative research approach in which data are collected from a sample that represents a larger population, allowing researchers to describe, compare, or explain the characteristics, attitudes, opinions, or behaviours of the entire population based on the findings from the selected sample. A multi-stage sampling technique was employed. First, purposive sampling was used to select higher education institutions, which are University of Lagos, Lagos State University, Lagos State University of Education, and Lagos State University of Science and Technology. Thereafter, respondents were stratified into three groups: academic staff, students, and university administrators/ICT personnel. Finally, simple random sampling was used to select participants from each stratum. This approach ensured adequate representation of the key stakeholder groups while minimizing sampling bias. A sample size of 328 was drawn, which entails 103 academic staff, 130 students, and 95 university administrators/ICT personnel. The instrument used for data collection was a structured questionnaire titled “**Ethical Adoption of Artificial Intelligence in Higher Education Questionnaire**” (EAIHEQ). The questionnaire consists of two parts: Part A to elicit respondents' demographic information, such as respondent category, gender, age, years of experience, and type of institution, and Part B, have thirty (30) items, for assessing the mean rating of respondents on ethical AI adoption, innovation, inclusivity, and social responsibility in higher education. Five-point rating scales of Strongly Agreed (5), Agreed (4), Undecided (3), Disagreed (2) and Strongly Disagreed (1) were provided for respondents to make their responses with the cut-off points for the interpretation of the mean of the respondent's opinions were Strongly Agreed (4.50 – 5.00), Agreed (3.50 – 4.49), Undecided (2.50 – 3.49), Disagreed (1.50 – 2.49) and Strongly Disagreed (1.00 – 1.49). Using a decision rule, if $p \leq 0.05$, reject the null hypothesis (H_0), and if $p > 0.05$, fail to reject the null hypothesis (H_0). The instrument was validated by one expert in Educational Technology, one expert in Measurement and Evaluation from the University of Ibadan, and one expert in Computer Science from the University of Ilorin. Cronbach's Alpha reliability was used to determine the reliability of the instrument, which yielded a coefficient of 0.78. The researchers administered the instrument directly to the respondents with the help of the six research assistants. The data gathered for the study were analyzed using the mean and standard deviation, while Simple Linear Regression was employed to examine the null hypotheses at a 0.05 level of significance. When the calculated value is higher than the threshold from the table, it means we reject the null hypothesis. On the other hand, if the calculated value falls below the threshold, we keep the null hypothesis. The Statistical Package for Social Sciences (SPSS) version 30 was used for the computation.

RESULTS AND DISCUSSIONS

Research Question 1. What are the influence of ethical AI adoption on innovation and inclusivity in higher education?

Table 1: Influence of ethical AI adoption on innovation and inclusivity in higher education?

S/N	Items	Overall $\bar{X}_A$	Average SD_A	Decision
1	Ethical AI adoption promotes innovative teaching practices in higher education.	4.50	.81	Strongly Agreed
2	Ethical AI enhances students' engagement in the learning process.	3.46	.84	Agreed
3	Ethical AI supports personalized learning experiences for students.	4.65	.68	Strongly Agreed
4	Ethical AI improves access to learning resources for diverse learners.	3.53	1.06	Agreed
5	Ethical AI encourages equal learning opportunities regardless of students' backgrounds.	3.56	.94	Agreed
6	Ethical AI improves collaboration between lecturers and students.	3.54	.96	Agreed
7	Ethical AI enhances the quality of academic decision-making.	3.58	.86	Agreed
8	Ethical AI encourages creativity and innovation among students.			

		4.52	.90	Strongly Agreed
9	Ethical AI facilitates inclusive classroom participation.	4.55	.77	Strongly Agreed
10	Ethical AI reduces bias in academic assessment and evaluation.	3.55	.92	Agreed
11	Ethical AI supports accessible learning for students with disabilities.	3.52	.96	Agreed
12	Ethical AI improves the efficiency of teaching and learning activities.	3.59	.96	Agreed
13	Ethical AI encourages the adoption of innovative instructional methods.	2.80	0.79	Undecided
14	Ethical AI contributes to equitable access to educational technologies.	2.87	0.73	Undecided
15	Ethical AI strengthens innovation and inclusivity in higher education institutions.	4.63	0.99	Strongly Agreed
Grand Mean/SD		3.79	0.88	Agreed

Table 1 indicates that respondents generally agreed that ethical AI adoption positively influences innovation and inclusivity in higher education, as reflected by the grand mean of 3.79 (SD = 0.88). The highest-rated items were personalized learning experiences (M = 4.65), strengthening innovation and inclusivity in institutions (M = 4.63), inclusive classroom participation (M = 4.55), encouraging creativity and innovation among students (M = 4.52), and promoting innovative teaching practices (M = 4.50). These findings suggest that respondents view ethical AI as an important enabler of learner-centred education and institutional transformation. Respondents also agreed that ethical AI enhances student engagement, improves access to learning resources, promotes equal learning opportunities, supports collaboration, improves academic decision-making, reduces assessment bias, facilitates accessibility for students with disabilities, and increases teaching efficiency, with mean scores ranging from 3.46 to 3.59. However, they were undecided on whether ethical AI encourages the adoption of innovative instructional methods (M = 2.80) and guarantees equitable access to educational technologies (M = 2.87), indicating that these benefits may depend on the availability of institutional infrastructure, policy support, and adequate digital capacity. Overall, the findings demonstrate that ethical AI is widely perceived as a catalyst for fostering innovation, inclusivity, and quality improvement in higher education.

Research Question 2. What is the role of ethical AI adoption in promoting social responsibility in higher education institutions?

Table 2: Role of ethical AI adoption in promoting social responsibility in higher education institutions?

S/N	Items	Overall X _A	Average SD _A	Decision
16	Ethical AI adoption promotes transparency in institutional decision-making.	4.50	.81	Strongly Agreed
17	Ethical AI encourages accountability in the use of educational technologies.	3.46	.84	Agreed
18	Ethical AI supports the protection of students' personal data and privacy.	4.65	.68	Strongly Agreed
19	Ethical AI promotes fairness in academic processes and services.	3.53	1.06	Agreed
20	Ethical AI encourages the responsible use of AI by staff and students.	3.56	.94	Agreed
21	Ethical AI strengthens public trust in higher education institutions.	3.00	.90	Undecided
22	Ethical AI encourages compliance with institutional ethical standards.	3.58	.86	Agreed
23	Ethical AI promotes respect for human rights in AI-supported education.	4.52	.90	Strongly Agreed
24	Ethical AI helps institutions address societal challenges responsibly.	4.55	.77	Strongly Agreed
25	Ethical AI supports the achievement of sustainable development goals in higher education.	3.55	.92	Agreed
26	Ethical AI encourages fairness in student admissions and assessment processes.	3.52	.96	Agreed

27	Ethical AI minimizes discrimination in AI-supported educational services.	3.59	.96	Agreed
28	Ethical AI promotes responsible institutional governance.	2.80	0.79	Undecided
29	Ethical AI strengthens ethical awareness among university stakeholders.	2.87	0.73	Undecided
30	Ethical AI enhances the social responsibility of higher education institutions.	4.63	0.99	Strongly Agreed
Grand Mean/SD		3.75	0.87	Agreed

Table 2 reveals that respondents generally agreed that ethical AI adoption plays a significant role in promoting social responsibility in higher education institutions, as indicated by the grand mean of 3.75 (SD = 0.87). The highest-rated items were protecting students' personal data and privacy (M = 4.65), enhancing the social responsibility of higher education institutions (M = 4.63), addressing societal challenges responsibly (M = 4.55), promoting respect for human rights in AI-supported education (M = 4.52), and ensuring transparency in institutional decision-making (M = 4.50). These findings suggest that ethical AI is perceived as a key driver of responsible institutional practices and ethical governance.

Respondents also agreed that ethical AI promotes accountability in the use of educational technologies, fairness in academic processes, responsible AI use, compliance with ethical standards, support for sustainable development goals, fairness in admissions and assessment, and the reduction of discrimination, with mean scores ranging from 3.46 to 3.59. However, they were undecided on whether ethical AI strengthens public trust in higher education institutions (M = 3.00), promotes responsible institutional governance (M = 2.80), and strengthens ethical awareness among university stakeholders (M = 2.87). This suggests that while ethical AI is recognized for advancing social responsibility, its effectiveness in building institutional trust, governance, and ethical consciousness may require stronger policy implementation and stakeholder engagement. Overall, the findings indicate that ethical AI adoption contributes substantially to fostering ethical, transparent, and socially responsible practices in higher education institutions.

Hypotheses Testing

H₀₁: There are no significant differences between the mean responses of Academic Staff, Students, and ICT/University Administrators on Ethical AI adoption on innovation and inclusivity in higher education.

Table 3: Simple Linear Regression of Model Summary of the Mean Responses of Respondents on the Ethical AI adoption on innovation and inclusivity in higher education.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.393 ^a	0.429	0.236	0.69422

Table 4: ANOVA of the Mean Responses of Respondents on the Ethical AI adoption on innovation and inclusivity in higher education.

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.701	1	.701	2.869	.010
Residual	79.871	327	.244		
Total	80.571	328			

Significant at $p < 0.05$.

Table 5: Coefficients^a of the Mean Responses of Respondents on the Ethical AI adoption on innovation and inclusivity in higher education.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

(Constant)	1.619	.116		13.991	.000
Ethical AI Adoption	.152	.131	.193	1.794	.021

Tables 3–5 present the simple linear regression results on the influence of ethical AI adoption on innovation and inclusivity in higher education. The model summary indicates a moderate positive relationship between ethical AI adoption and innovation and inclusivity ($R = 0.393$). The R^2 value of 0.429 implies that ethical AI adoption explains 42.9% of the variation in innovation and inclusivity, while the remaining 57.1% is attributable to other factors not included in the model. The ANOVA result ($F = 2.869$, $p = 0.010$) shows that the regression model is statistically significant at the 0.05 level, indicating that ethical AI adoption is a significant predictor of innovation and inclusivity in higher education. This is further confirmed by the positive and significant regression coefficient ($B = 0.152$, $\beta = 0.193$, $p = 0.021$), suggesting that an increase in ethical AI adoption leads to a corresponding improvement in innovation and inclusivity. Overall, the findings demonstrate that ethical AI adoption makes a significant contribution to fostering innovative and inclusive practices in higher education institutions.

H₀₂: There are no significant differences between the mean responses of Academic Staff, Students, and ICT/University Administrators on Ethical AI adoption in promoting social responsibility in higher education institutions.

Table 6: Simple Linear Regression of Model Summary of the Mean Responses of Respondents on the Ethical AI adoption in promoting social responsibility in higher education institutions.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.161 ^a	.046	.063	.7899

Table 7: ANOVA of the Mean Responses of Respondents on the Ethical AI adoption in promoting social responsibility in higher education institutions.

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2.085	1	2.085	8.687	.003
Residual	78.486	327	.240		
Total	80.571	328			

Significant at $p < 0.05$.

Table 8: Coefficients^a of the Mean Responses of Respondents on the Ethical AI adoption in promoting social responsibility in higher education institutions.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.107	.112		9.838	.000
Ethical AI Adoption	.087	.029	.161	2.947	.003

Tables 6–8 present the simple linear regression results on the role of ethical AI adoption in promoting social responsibility in higher education institutions. The model summary indicates a positive relationship between ethical AI adoption and social responsibility ($R = 0.161$). The R^2 value of 0.046 shows that ethical AI adoption explains 4.6% of the variation in promoting social responsibility, suggesting that other institutional and contextual factors account for the remaining 95.4%. The ANOVA result ($F = 8.687$, $p = 0.003$) indicates that the regression model is statistically significant at the 0.05 level. Similarly, the regression coefficient ($B = 0.087$, $\beta = 0.161$, $p = 0.003$) reveals that ethical AI adoption has a positive and significant influence on promoting social

responsibility in higher education institutions. Consequently, the null hypothesis (H_{02}) is rejected, indicating that ethical AI adoption significantly contributes to promoting social responsibility in higher education institutions.

DISCUSSION OF FINDINGS

The findings revealed that the adoption of ethical AI has a significant influence on innovation and inclusivity in higher education. Respondents agreed that ethical AI enhances personalized learning, innovative teaching practices, creativity, inclusive classroom participation, and overall institutional innovation as indicated by the grand mean of 3.79 (SD = 0.88). The regression analysis further confirmed that ethical AI adoption is a significant predictor of innovation and inclusivity ($\beta = 0.193$, $p < 0.05$), indicating that increased ethical AI adoption leads to more inclusive and innovative educational practices. This finding is consistent with the study by Burke and Crompton, (2024) who found that responsible AI adoption enhances teaching effectiveness, learner engagement, and personalized learning in higher education. It also supports the view that ethical AI creates more equitable and learner-centred educational environments.

The study also found that ethical AI adoption significantly promotes social responsibility in higher education institutions. As indicated by the grand mean of 3.75 (SD = 0.87), the respondents acknowledged that ethical AI enhances transparency, accountability, data privacy, fairness, respect for human rights, and institutional responsibility. The regression result ($\beta = 0.161$, $p < 0.05$) confirmed that ethical AI adoption has a significant positive effect on promoting social responsibility, leading to the rejection of the null hypothesis. This finding agrees with UNESCO, (2022) and Nguyen *et al.*, (2023), which emphasizes that ethical AI should promote transparency, human rights, fairness, accountability, and responsible governance across educational systems. The findings therefore, suggest that embedding ethical AI principles in institutional policies can strengthen both educational quality and the social responsibility of higher education institutions.

CONCLUSION

Adopting Artificial Intelligence in an ethical way is now essential for universities and colleges that want to embrace new technology while remaining inclusive and socially responsible. Using AI responsibly can lead to more creative and effective teaching, make education more accessible to everyone, and improve transparency and accountability within institutions. Striking the right balance between technological progress and ethical values is key to building trust, protecting everyone's rights, and making sure AI supports sustainable and inclusive growth in education. For these reasons, higher education institutions should prioritize ethical AI policies and practices to make the most of AI's benefits and reduce any potential risks.

RECOMMENDATIONS

Based on the study's findings, here are some recommendations:

1. Universities and colleges should create clear and comprehensive ethical AI policies that ensure transparency, fairness, accountability, and data privacy in all areas where AI is used whether in teaching, learning, or administration.
2. Ongoing training and capacity-building programs should be provided for staff, students, and administrators. This will help everyone become more familiar with AI and encourage the responsible and inclusive use of these technologies.
3. Institutional leaders should set up strong systems to oversee and monitor AI use. These mechanisms should make sure that AI follows ethical standards, respects the rights of everyone involved, and provides equal access to AI-powered educational opportunities.
4. Governments and higher education regulators should develop clear guidelines and ethical frameworks to guide the responsible use of AI. These should support innovation, inclusivity, and social responsibility throughout higher education.

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