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Does AI Knowledge Encourage Cheating? Investigating Student Perceptions, Ethical Engagement, and Academic Integrity in the Digital Age

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Abstract. The increasing integration of artificial intelligence (AI) and technological tools in education necessitates understanding their impact on academic integrity and ethical behaviour. This study, focusing on misconduct trends, explores the relationship between students' knowledge of AI tools and their ethical engagement. A quantitative approach was employed, using a five-point Likert scale questionnaire distributed to 376 students at Alex Ekwueme Federal University, Ndufu-Alike, Nigeria, with 326 valid responses analysed. Descriptive statistics, correlation analysis, and reliability and factor analyses were conducted using SPSS. Results revealed a significant inverse relationship between AI exposure and ethical behaviour, alongside a positive association with academic misconduct. Furthermore, education policies had limited efficacy in curbing unethical practices, emphasising the need for robust ethics education and stricter enforcement. This study underscores the

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dual nature of AI's influence—enhancing learning opportunities while posing ethical challenges—and provides actionable recommendations for policymakers and educators to foster ethical practices in technologically advanced academic settings.

Keywords: academic integrity; artificial intelligence; ethical engagement; technology tools; educational policies

1. Introduction

The rapid adoption of artificial intelligence (AI) and technological tools in educational environments has revolutionised the learning landscape, prompting a critical evaluation of their ethical implications on academic honesty and integrity (Aluko et al., 2025; Ukeje et al., 2024). AI offers immense potential to enhance educational processes through personalised learning experiences and improved outcomes (Sagın et al., 2023). Despite these advancements, the ethical ramifications of integrating AI into education remain a pressing concern, especially as academic environments navigate the balance between leveraging technology and upholding integrity (Ukeje et al., 2024). Existing research highlights AI's dual role in education, simultaneously advancing self-directed learning and student engagement while raising concerns about its impact on ethical behaviour (Rashid & Asghar, 2016). The ambiguity surrounding its influence on academic performance further complicates this landscape, underscoring the need for a deeper understanding of how AI shapes student conduct. Additionally, discrepancies in academic dishonesty rates between online and face-to-face courses (Peled et al., 2019) illuminate the interplay between technological tools and ethical engagement. Online environments, often perceived as fostering reduced unethical behaviour, present unique challenges due to the impersonal nature of digital interactions, which can normalise misconduct (Riemenschneider et al., 2011).

The ethical dimensions of AI integration extend beyond classroom settings to fields like medical education, where concerns about malpractice lawsuits have redefined teaching practices (Reed et al., 2008). These scenarios demonstrate the necessity of establishing robust ethical frameworks to guide AI's application in education. Researchers such as Holmes et al. (2021) advocate frameworks prioritising justice, accountability, transparency, inclusivity, and bias reduction, ensuring that technological advancements align with ethical principles. Institutional policies and instructional strategies are also pivotal in mitigating academic dishonesty and fostering ethical AI usage. For instance, comprehensive regulations, specialised training, and AI-powered systems for detecting and deterring malpractice can significantly enhance academic integrity (Cotton et al., 2023). Encouraging activities like goal-setting, self-assessment, and constructive feedback promote self-regulation and reduce malpractice (Chang et al., 2023). Explicit guidelines governing AI-generated content, as proposed by Caprioglio and Paglia (2023), are equally vital for upholding ethical standards in educational settings.

Understanding the factors influencing students' ethical or unethical use of AI tools is essential for devising practical solutions. Cronan et al. (2015) found that students' ethical intentions are shaped by both internal beliefs and external norms, while Amran et al. (2021) emphasised how favourable attitudes toward dishonesty predict actual misconduct. These findings align with this study's observation that increased AI exposure is linked to rationalisations for unethical academic behaviour, thus reinforcing the psychological basis of misconduct. Further, it was noted that anonymity of online environments can further facilitate such actions (Riemenschneider et al., 2011). Despite the growing body of literature on AI's impact, gaps remain in understanding how exposure to AI influences ethical behaviour and academic misconduct. While prior studies address the broader ethical implications of technology in education, limited attention has been paid to how AI tools specifically shape students' integrity-related decisions. Our study aims to fill this gap by examining the relationship between students' knowledge of AI tools and their involvement in academic integrity. Analysing ethical and unethical AI use patterns, our research seeks to identify the underlying drivers of misconduct and propose actionable solutions for fostering ethical engagement. Our results in this study are expected to provide nuanced insights into the dual nature of AI's impact on academic environments. While AI offers opportunities for enhanced learning, its potential to normalise unethical behaviour demands immediate attention. By exploring how students perceive and utilise AI tools, this research contributes to the ongoing discourse on academic honesty, offering practical recommendations for educators, policymakers, and institutions.

This study is significant for its timely exploration of the ethical dimensions of AI use in education. Through focusing on students' perceptions, it bridges the gap between policy, technology adoption, and moral accountability. The findings provide educators, policymakers, and institutional leaders with empirical evidence to design ethics-oriented AI literacy programmes, revise academic integrity policies, and support students in navigating emerging digital risks.

2. Review of Related Literature

2.1 Fostering Academic Integrity and Ethical Awareness in the Age of AI

The prominence of academic integrity and ethical problems has grown as AI techniques are widely used in education (Hua, 2023; Perkins, 2023; Ukeje et al., 2024). Perkins (2023) has pointed out that the use of large language models by students has emphasised the necessity for explicit academic integrity regulations. According to Hua (2023), the use of AI tools does not have a direct impact on academic dishonesty among college students. Cotton et al. (2023) argue that institutions can address these challenges by implementing proactive and ethical practices. Măță et al. (2019) explain how human traits, external forces, and the ICT environment all play a role in the unethical use of information technology. According to Cronan et al. (2015), students' inclinations to participate in academic dishonesty are greatly impacted by their attitudes, perceived control, norms, past behaviour, and moral obligations. In addition, Harper (2006) has demonstrated a direct association between the greater use of technology in education and the occurrence of academic dishonesty.

Hidayat-ur-Rehman and Ibrahim (2023) observe that reluctance to employ chatbots in education is influenced by perceptions of unfair evaluations, excessive dependence on AI, and biases. Underwood and Szabo (2003) identified online experience, the acceptability of cheating, and risk assessment as factors that can predict students' willingness to accept plagiarism. The problem is especially worrisome in professional domains, as LaDuke (2013) cautions that academic dishonesty among nursing students may result in unethical behaviour in their future professional endeavours. The increased accessibility and ability to duplicate content from the internet have led to a rise in e-cheating, as noted by Măță et al. (2020). The influence of AI education on ethical comprehension is substantial. According to Garrett et al. (2020), the inclusion of AI ethics courses, whether as standalone courses or integrated inside technical AI courses, has a beneficial impact on students' comprehension of ethical principles. Similarly, Burton et al. (2017) highlighted the significance of incorporating ethical considerations into AI courses by using actual case studies.

Litzky and Oz (2008) emphasised the efficacy of IT ethics education in influencing ethical decision-making, illustrating the crucial importance of education in improving students' comprehension of ethical matters. Wang, Wang, and Wang (2020) further supported this notion by combining a planned behaviour model with internet ethics education to effectively enhance students' ethical behaviour on the internet. Game-based learning and cooperative techniques have demonstrated efficacy as innovative educational methods. Hardebolle et al. (2022) established that game-based learning is an effective and captivating method for imparting knowledge about AI ethics. Kim (2022) promoted the use of the Cooperative Learning Method to teach AI ethics in elementary and secondary school, highlighting its efficacy in cultivating ethical consciousness among younger pupils. It is imperative to incorporate ethics into AI education in order to advance the ethical use of AI. Garrett et al. (2020) emphasised the significance of offering separate ethics courses and integrating ethics into technical AI courses. They specifically examined the repercussions of AI work and provided guidance to educators on pertinent subjects. Kim (2022) proposed the use of cooperative learning techniques to foster the development of ethical AI through joint efforts, emphasising the significance of mutual collaboration rather than rivalry. The preceding information emphasises the significance of well-defined policies, ethical instruction, and inventive teaching approaches in tackling issues of academic integrity and ethical considerations in the use of AI tools (Hua, 2023; Perkins, 2023; Ukeje et al., 2024). Implementing these tactics is crucial for cultivating a culture of integrity and ethical consciousness among students, guaranteeing the responsible and ethical use of technological breakthroughs in academic environments.

2.2 Navigating the Ethical Challenges of Integrating AI Into Higher Education

The implementation of AI technology in higher education raises notable ethical issues, such as those pertaining to surveillance, social disparity, and employment stability (Huang et al., 2021). A significant proportion of university students (58%) consider unemployment to be a fundamental ethical worry linked to AI, along with other apprehensions regarding emotional AI and social control (Ghotbi &

Ho, 2021). The nature of these worries differs among students with diverse academic backgrounds. Students attending technology and science-focused institutions demonstrate greater apprehension about the privacy implications of AI technologies in education, whereas students in arts, humanities, and social sciences display slightly less concern (Irfan et al., 2023). Creating a systematic and ethical framework for AI, similar to that used in medicine, is difficult because of the fundamental disparities in the development and regulation of AI (Mittelstadt, 2019). Teaching health AI ethics is crucial in medical education to adequately equip students with the necessary skills to safely and efficiently engage with AI in their professional practice (Katznelson & Gerke, 2021). The ethical concerns in the field of AI-health can be categorised as epistemic, normative, or connected to traceability. These concerns emerge at many levels of abstraction, such as individual, interpersonal, group, institutional, and societal or sectoral levels (Morley et al., 2020).

The proficiency of engineering students in recognising, addressing, and contemplating hypothetical AI ethics situations exposes potential deficiencies in their comprehension of AI ethical principles (Orchard & Radke, 2023). The significance of a worldwide outlook in evaluating ethical considerations is emphasised by a multinational survey conducted by Ulman et al., which demonstrated the substantial impact of AI and technology exposure on the comprehension of IT ethics among college students in seven countries across Europe, Africa, and North America (Ulman et al., 2019). Saylam et al. (2023) highlighted the importance of implementing policies that optimise the positive use of AI in education while minimising ethical issues. Bu's research provided more support for the need to redefine teachers' responsibilities and establish appropriate laws to improve ethical comprehension in the integration of AI into education (Bu, 2022).

Yu and Yu (2023) undertook a thorough examination of AI ethics in education, emphasising the fundamental principles of ethical AI usage among students and distinguishing between responsible and irresponsible usage patterns. Mora Naranjo et al. conducted a study on the ethical issues related to the application of AI, specifically focusing on privacy, equity, and transparency. The study identified important areas where students could potentially act in an ethical or unethical manner (Mora Naranjo et al., 2023). The literature highlights the wide range of ethical challenges related to AI in higher education, which vary greatly among various academic disciplines and cultural situations. It emphasises the need for customised educational methodologies and policies to tackle these issues, guaranteeing that the incorporation of AI into education is carried out responsibly and ethically.

2.3 Promoting Ethical AI and Technology Use in Education: Strategies and Challenges

Various approaches are employed to encourage the ethical usage of AI and technological tools in educational contexts. These strategies encompass involving students in problem-solving tasks, using plagiarism detection systems, and incorporating AI into teaching methods to cultivate a responsible academic atmosphere (Mohammadkarimi, 2023). Universities have a vital part in this effort

by creating thorough regulations, offering specialised training, and using various techniques to identify and prevent cheating. This ensures the proper use of AI technologies such as ChatGPT (Cotton et al., 2023). Integrating features like establishing goals, self-evaluation and feedback, and customisation into AI chatbots has been proven to improve self-regulation in students, hence reducing instances of academic misconduct (Chang et al., 2023). Implementing explicit protocols and rules for AI-generated content in scholarly writing not only helps to reduce any adverse effects but also encourages ethical use of these tools (Caprioglio & Paglia, 2023). Incorporating AI into educational curricula, together with the establishment of comprehensive standards and regulations, is crucial for mitigating academic misconduct and maximising the capabilities of AI technologies (Koos & Wachsmann, 2023).

It is crucial for educators, researchers, and policymakers to work together to create methods that give priority to ethics, safety, and efficacy when implementing AI in educational settings. This is necessary to reduce potential hazards and prevent academic misconduct (Nykonenko, 2023). Counselling initiatives, such as the implementation of examination ethics clubs and the active participation of parents and teachers' associations, can effectively foster ethical use of AI and technology tools among students (Alutu & Aluede, 2006). Teaching health AI ethics in medical colleges using case studies derived from recent real-life instances will greatly improve the ethical use of AI and technology tools (Katznelson & Gerke, 2021). Students' intentions to participate in immoral action are significantly influenced by their personal attitudes and beliefs. A study conducted at Payame Noor University found that ethical beliefs, subjective norms, computer self-efficacy, and perceived behavioural control are important factors that influence students' intentions to engage in unethical usage of IT (Amran et al., 2021). Owusu et al. (2018) conducted a study that discovered a direct relationship between personal opinions and the likelihood of participating in unethical actions in the future.

The impact of students' behaviour is significantly shaped by their ideas regarding academic integrity and the policies implemented by educational institutions. Mackay's literature analysis emphasised the significance of students' attitudes regarding academic integrity and the influence of institutional rules on instances of academic integrity violations in shaping their inclination towards unethical behaviours (Mackay, 2022). Lozada et al. highlighted the need for educational institutions to foster critical thinking abilities and implement ethical standards to address potential issues like plagiarism (Lozada et al., 2023). The accessibility of unethical behaviours in internet situations also fosters such conduct. Riemenschneider et al. (2011) discovered that the absence of personal connection in online contacts leads to a greater acceptance of immoral behaviours, such as plagiarism or cheating, because they are easier to carry out and lack personalisation. It is crucial to employ ethical frameworks and educational initiatives in order to address and counteract unethical practices. The research conducted by Gartner and Krasna emphasises the significance of integrating ethical factors like as autonomy, privacy, trust, and accountability into AI systems in education to avoid unethical conduct (Gartner & Krasna, 2023). Furthermore,

Smith's AISA model provides a pragmatic structure for students to comprehend and implement ethical ideas in academic settings (Smith, 2011).

In order to ensure the ethical use of AI and technology in education, it is imperative to adopt a comprehensive approach. This encompasses the creation of policies, implementation of training programmes, integration of ethical frameworks, and cultivation of a culture of integrity among both students and educators. These measures are crucial for reducing academic misconduct and guaranteeing responsible and ethical usage of AI tools in academic environments.

2.4 Balancing Innovation and Ethics: Integrating AI into Education

Artificial intelligence tools in education have the capacity to improve educational processes and facilitate tailored learning experiences. Nevertheless, it is vital for educators to uphold a discerning viewpoint regarding the usefulness and constraints of their methods (Sağın et al., 2023). Although there is evidence that technology usage can enhance self-directed learning and student engagement, it does not have a substantial direct effect on academic achievement (Rashid & Asghar, 2016). Notably, research has shown that students are less likely to participate in academic dishonesty in online courses compared to face-to-face classes. This difference can be attributed to various variables, including motivation, attitudes, personality traits, and cultural backgrounds (Peled et al., 2019).

The incorporation of AI and other sophisticated technologies in education also brings forward novel aspects to instructional methodologies. Physicians have been shown to modify their teaching methods in response to worries about malpractice lawsuits, thereby limiting beneficial learning experiences for students (Reed et al., 2008). Plaintiff expert witnesses in the legal field typically have less experience, lesser scholarly influence, and are less likely to be associated with academic institutions compared to expert witnesses appearing for defendants (Eloy et al., 2013). To effectively address ethical concerns in AI education, it is essential to establish a meticulously crafted framework that takes into account key factors such as fairness, accountability, transparency, bias, autonomy, agency, and inclusivity. An imperative framework is crucial for effectively addressing the intricate ethical dilemmas that emerge from the integration of AI in education (Holmes et al., 2021). The implementation of AI technologies in educational institutions imposes additional ethical responsibilities on teachers, hence adding complexity to their professional duties. Adams et al. emphasise the ethical dilemmas that instructors have while adopting AI and emphasise the significance of resolving these dilemmas to maintain ethical standards in education (Adams et al., 2022).

Moreover, it is imperative to redefine the responsibilities of teachers and provide education to students regarding the ethical use of AI. Bu underscores the significance of implementing efficient regulations for the deployment of AI in education to foster ethical conduct among students (Bu, 2022). The incorporation of ethical principles into educational curriculum, particularly in computer security courses, seeks to assist students in recognising the convergence of ethics

and politics within their technological domain. Nevertheless, Petelka et al. discovered that these interventions had a limited impact on students' perception of themselves as participants in ethical and political matters (Petelka et al., 2022).

Graduate education encounters difficulties with the ethical use of AI techniques. Tedesco and Ferreira (2023) explore the necessity of fostering ethical and academic integrity among graduate students. They underscore the significance of actively addressing these concerns to promote responsible use of AI. The preceding information emphasises the potential advantages of AI technologies in education, while simultaneously emphasising the crucial requirement for ethical considerations and efficient regulatory systems. Educators must adeptly negotiate the intricacies of incorporating AI technology into their teaching methods to improve learning outcomes, all the while upholding ethical norms and effectively addressing the novel problems that these technologies present to their professional practices.

3. Methodology

3.1 Philosophical Lens and Design

This study adopts a positivist philosophical lens, focusing on quantifiable data and empirical analysis to understand the correlation between students' familiarity with AI tools and their academic integrity. A quantitative design was employed, leveraging structured surveys to collect measurable data and analyse patterns of ethical engagement and misconduct.

3.2 Context and Participants

The research was conducted at Alex Ekwueme Federal University, Ndufu-Alike, Nigeria. A total of 376 undergraduate students were invited to participate, with 326 providing valid responses. Participants represented diverse demographic backgrounds, educational levels, and varying levels of technological proficiency.

3.3 Measurement Instrument

A five-point Likert scale questionnaire was developed to measure key constructs, including AI exposure, ethical engagement, academic misconduct, and perceptions of educational policies. The instrument included 15 questions aligned with the study objectives and informed by prior literature. The survey questionnaire was adopted due to its capacity to gather quantifiable data efficiently from a large population, providing breadth and standardisation unmatched by qualitative methods such as interviews or focus groups. Compared to observational tools or open-ended formats, structured questionnaires ensure uniformity of responses and are less prone to researcher bias.

3.4 Reliability and Content Validity

The instrument's reliability was assessed using Cronbach's Alpha, which yielded a coefficient of 0.708 across 15 items, indicating acceptable internal consistency. Content validity was confirmed through expert review to ensure alignment with the ethical, academic, and technological constructs of interest. Additionally, anonymity was rigorously maintained during data collection by using digital and offline forms without any personal identifiers. This helped reduce social desirability bias and encouraged honest participation.

3.5 Method of Data Collection Procedure

3.5.1 Data collection instrument

A structured, self-administered questionnaire was used to collect data. The instrument included 15 items measured on a five-point Likert scale, addressing constructs such as AI exposure, ethical engagement, academic misconduct, and education policy effectiveness (see Appendix 1). The questionnaire was developed based on existing literature and expert consultation, ensuring content alignment and contextual relevance.

3.5.2 Data collection procedure

Data were collected using a combination of online and offline surveys. Participants were recruited through university communication channels, ensuring anonymity and voluntary participation. No names, registration numbers, or personally identifying information were collected, and responses were stored in an encrypted, password-protected format accessible only to the research team. Clear instructions were provided to guide responses.

3.6 Method of Data Analysis Procedure

Descriptive statistics, correlation analysis, and factor analysis were conducted using SPSS. Key metrics, such as means, standard deviations, and Pearson correlation coefficients, were used to identify relationships among variables and test hypotheses.

3.7 Common Method Bias

Common method bias was minimised by using a well-structured questionnaire and ensuring anonymity. Factor analysis confirmed that the variance was not dominated by a single factor, indicating minimal bias.

3.8 Study Variables

The study involved the following key variables:

- **Independent Variables:**
 - Students' AI exposure (measured by frequency of use and familiarity)
 - Awareness and perception of education policies on ethics
- **Dependent Variables:**
 - Ethical engagement (positive behavioural traits toward integrity)
 - Academic misconduct (cheating, plagiarism, unauthorised AI use)
- **Moderating Variables:**
 - Demographic characteristics (e.g., gender, age, year of study, tech proficiency)

3.9 Ethical Consideration and Institutional Review Approval

The research complied with the university's research ethics committee's prescription and requirement procedure. Participants provided informed consent, and the study adhered to principles of confidentiality and respect for respondents' rights.

4. Results

4.1 Demographic Analysis

Table 1: Respondents' Demographic Characteristics

	Options	Frequency	Percentage	Cumulative Percentage
Gender	Male	82	25.15	25.15
	Female	233	71.47	96.63
	Prefer Not to Say	11	3.37	100.00
	Total	326	100.00	100.00
Age	18-20	128	39.26	39.26
	21-23	117	35.89	75.15
	24-26	51	15.64	90.80
	27-30	14	4.29	95.09
	Above 30	7	2.15	97.24
	Prefer Not to Say	9	2.76	100.00
	Total	326	100.00	100.00
Education	Year 1	88	26.99	26.99
	Year 2	105	32.21	59.20
	Year 3	57	17.48	76.69
	Year 4	62	19.02	95.71
	Year 5 & 6	2	0.61	96.32
	Postgraduate	4	1.23	97.55
	Prefer Not to Say	8	2.45	100.00
	Total	326	100.00	100.00
Technology Proficiency	Basic	139	42.64	42.64
	Intermediate	95	29.14	71.78
	Experienced	52	15.95	87.73
	Prefer Not to Say	40	12.27	100.00
	Total	326	100.00	100.00

Note: Table 1 comprises the participants' demographics and the statistical summary.

From Table 1, the gender distribution among respondents showed a notable skew towards female respondents, with females at 71.47%. However, male respondents at 25.15% were significantly represented, which shows objectivity, particularly in how different genders engage with AI and perceive academic integrity. The majority of respondents were young adults, with the largest age group being 18-20 years at 39.26%, followed by 21-23 years at 35.89%. This indicates that over 70% of the respondents were young adults within a highly productive age range; hence, the youthful demographic highlights a population likely to be more technologically savvy and possibly more open to using AI tools. However, all the age categories were significantly represented, thereby indicating objectivity in responses. Demographics for educational levels show a significant portion of respondents were in their early years of study, with 26.99% in their first year and 32.21% in their second year. The predominance of early-year students may reflect their increased exposure to introductory AI tools and technology in education, shaping their responses on academic integrity and ethical engagement. Meanwhile, the respondents' self-reported proficiency with technology varied, with the majority indicating basic (42.64%) or intermediate (29.14%) proficiency levels. Nonetheless, those with experienced proficiency were significantly represented at 15.95%. This range of proficiency levels suggests a diverse sample in terms of their ability to interact with AI tools, which could have implications for their ethical engagement and susceptibility to malpractice.

4.2 Reliability Analysis

Table 2: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.708	.732	15

The reliability of the questionnaire was measured using Cronbach's Alpha (see Table 2), a standard metric for assessing internal consistency. The overall Cronbach's Alpha coefficient was 0.708, which is above the commonly accepted threshold of 0.7, indicating that the questionnaire is reliable and the items within it consistently measure the intended constructs.

Cronbach's Alpha Based on Standardised Items: The value of 0.732 further supports the reliability of the instrument. This consistency is crucial for ensuring that the data collected reflects true patterns rather than random variations.

4.3 Factor Analysis

Table 3: Kaiser-Meyer-Olkin (KMO) and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.764
Bartlett's Test of Sphericity	Approx. Chi-Square	500.250
	Df	15
	Sig.	<.001

To evaluate the suitability of the data for factor analysis (see Table 3), the KMO measure and Bartlett's Test of Sphericity were employed.

KMO Measure: The KMO measure of sampling adequacy was 0.764, which falls within the acceptable range (0.5 to 0.9). This indicates that the sample size was adequate for the factor analysis.

Bartlett's Test of Sphericity: The test yielded an approximate chi-square value of 500.250 with 15 degrees of freedom and a significance level of $p < 0.001$. This significant result confirms that the correlations between items were sufficiently large for performing a factor analysis. These analyses validate that the data set is appropriate for further statistical examination and that the instrument used is both reliable and valid for measuring the constructs of interest.

Table 4: Correlation Matrix of Key Study Variables

Correlations		Exposure to AI	Education Policies	Ethical Engagement	Malpractice Trends	Unethical Practices	Academic Integrity
Exposure to AI	Pearson Correlation	1					
Education Policies	Pearson Correlation	-0.406	1				
Ethical Engagement	Pearson Correlation	-0.943	0.179	1			
Malpractice Trends	Pearson Correlation	0.783	-0.218	-0.846	1		
Unethical Practices	Pearson Correlation	0.551	0.450	-0.617	0.853	1	
Academic Integrity	Pearson Correlation	0.015	-0.064	0.053	-0.057	-0.111	1

* Correlation is significant at the 0.05 level (2-tailed)

Note: Table 4 shows the correlation matrix of the key study variables.

The application of correlation analysis in this study was essential to examine the inter-variable relationships, direction, and strength between the independent and dependent variables. Correlation coefficients, ranging from +1 to -1, indicate the strength and nature of associations between variables. A positive correlation implies that an increase in one variable corresponds with an increase in another, while a negative correlation suggests an inverse relationship. For interpretation, coefficients less than or equal to 0.3 are considered weak, those up to 0.5 are moderate, and those above or equal to 0.7 are strong. Prior to analysing thematic patterns, preliminary analyses were conducted to validate the measurement

instrument and assess the dataset's suitability. The instrument demonstrated acceptable internal consistency, with a Cronbach's Alpha value of 0.708. The sampling adequacy was confirmed through a KMO measure of 0.764. Additionally, Bartlett's Test of Sphericity yielded significant results ($p < 0.001$), confirming that the dataset was appropriate for factor analysis. Descriptive statistics revealed that most participants reported basic to intermediate proficiency with AI tools, suggesting a varied familiarity level across the sample.

The correlation analysis revealed a strong negative relationship ($r = -0.943$) between AI exposure and ethical engagement. This implies that students who reported higher exposure to AI tools were more likely to demonstrate lower levels of ethical behaviour. This finding is consistent with studies that caution against the ethical risks of unchecked AI use in educational settings (Cronan et al., 2015). Furthermore, individuals with greater AI proficiency showed a higher likelihood of justifying unethical practices, highlighting the importance of structured ethical guidance in technology use. A significant positive correlation ($r = 0.783$) was found between AI exposure and malpractice trends. This suggests that students who are more familiar with AI tools are also more inclined towards academic misconduct. Specific behaviours included the use of generative AI for plagiarism and unauthorised aid during assessments. These findings support Harper's (2006) position that advanced technological access can enable unethical academic behaviour. Additionally, students with high AI exposure often perceived academic misconduct as less risky, which may be attributed to the anonymity that AI-mediated tools provide.

Education policies demonstrated a modest positive correlation with ethical engagement ($r = 0.179$), indicating some level of effectiveness in encouraging ethical conduct among students. On the other hand, the negative correlation observed between education policies and malpractice trends ($r = -0.218$) shows their potential to deter academic dishonesty when implemented effectively. Respondents noted that clear policies on AI use and explicit consequences were influential, although inconsistent enforcement reduced overall impact. Ethical engagement itself showed a significant negative correlation with malpractice trends ($r = -0.846$) and with unethical practices ($r = -0.617$). Students who exhibited strong ethical awareness were less likely to engage in academic misconduct. Interventions such as ethics-focused workshops, collaborative discussions, and case study analysis were identified by participants as effective in promoting integrity. Ethical awareness also served as a buffer, minimising the tendency to misuse AI tools.

Overall, the findings reveal a complex, dualistic influence of AI in educational contexts. While AI tools significantly enhance productivity and learning engagement (Aluko et al., 2025), they also introduce serious ethical concerns. The statistical validation of the measurement instrument through reliability and factor analysis ensured robust outcomes. The relationships observed suggest that increased AI exposure reduces ethical engagement and escalates malpractice trends. Nonetheless, educational policies and ethics education emerged as essential moderating influences. To mitigate AI-related ethical risks, an integrated

approach combining policy reform, ethics education, and consistent institutional enforcement is crucial.

5. Discussion

The findings of this study revealed a significant negative correlation between AI exposure and ethical engagement, indicating that students with higher familiarity with AI tools were more prone to unethical academic behaviour. This supports prior research that found increased access to technology, when not accompanied by ethical guidance, can weaken academic integrity (Cronan et al., 2015; Harper, 2006; Luciano, 2024). The observed trend was particularly notable among students in their first and second years, most of whom were aged 18 to 23. This aligns with studies suggesting that early-year students are more susceptible to digital misconduct due to limited maturity, inadequate policy awareness, and heightened social conformity (Ulman et al., 2019; Underwood & Szabo, 2003).

A strong positive correlation was also found between AI exposure and malpractice trends, suggesting that as students become more proficient with AI, the likelihood of academic misconduct increases. This aligns with Adiyono et al. (2025), who found that 70% of students used AI tools during exams, often for convenience rather than learning, leading to compromised academic performance. Similarly, Riemenschneider et al. (2011) reported that the anonymity of digital platforms reduces perceived risk and increases unethical decision-making. The implication is that familiarity with AI does not inherently cause misconduct, but without ethics training, students may exploit these tools irresponsibly (Amran et al., 2021; Mora Naranjo et al., 2023; Garrett et al., 2020). The modest positive correlation between education policies and ethical engagement, alongside their limited impact on malpractice trends, suggests that institutional frameworks alone are insufficient to enforce ethical behaviour. Participants reported inconsistency in how policies are applied and a lack of detailed guidance around AI usage, which may contribute to policy ineffectiveness. Similar findings were reported by Mackay (2022), Saylam et al. (2023), and Bu (2022), who emphasised that policy effectiveness depends not just on content but also on implementation, stakeholder engagement, and policy clarity. While Yu and Yu (2023) argued that detailed policy communication can improve behaviour, this study's results highlight the need for policies to be supplemented with practical, values-based ethics education tailored to student levels and contexts.

The inverse correlation between ethical engagement and malpractice confirms that ethical awareness serves as a mitigating factor against academic misconduct. Students who reported high ethical engagement were less likely to engage in dishonest practices, affirming the protective role of ethics-oriented learning experiences. This supports the conclusions of Kim (2022), Garrett et al. (2020), and Litzky and Oz (2008), who found that cooperative learning, reflective exercises, and case-based discussions significantly improve students' ethical decision-making. The demographic distribution of the study, which showed stronger ethical responses from female and upper-level students, further supports findings by Underwood and Szabo (2003) that maturity and academic experience improve

students' commitment to integrity. These findings collectively reveal a dual role of AI in higher education: it offers pedagogical advantages while simultaneously presenting ethical vulnerabilities. This duality has been previously discussed by Luciano (2024), Burton et al. (2017), and Holmes et al. (2021), who argued that the benefits of AI must be weighed against its potential to erode ethical standards when institutional safeguards are weak. Addressing this challenge requires moving beyond policy formulation to a more comprehensive ethics infrastructure that embeds ethical AI usage into both academic policies and classroom practice (Cotton et al., 2023; Gartner & Krasna, 2023; Petelka et al., 2022).

The long-term consequences of dishonest academic behaviour also warrant concern. This study affirms that habituated misconduct with AI tools, such as plagiarism, unauthorised content generation, or cheating during assessments, may translate into future professional ethical lapses. These concerns are supported by LaDuke (2013), who warned that unethical academic behaviour among nursing students could predict later clinical misconduct, and Tedesco and Ferreira (2023), who argued that lapses in graduate school compromise future professional conduct. The findings thus emphasise that AI-related misconduct is not merely academic but developmental and moral in scope.

To mitigate these risks, institutions must pursue a multi-layered approach that integrates ethics education into AI training, revises policy frameworks for relevance and clarity, and creates participatory structures where students, staff, and administrators co-develop standards. Faculty should receive tools and training to help students understand ethical dilemmas associated with AI, supported by case studies and real-life scenarios that illuminate the complexity of responsible use (Burton et al., 2017; Katznelson & Gerke, 2021; Petelka et al., 2022). Such reforms must also account for demographic realities; for instance, early-year students may benefit more from peer-led ethics clubs or orientation-based ethics workshops, while senior students may require scenario-based discussions linked to their fields of study (Garrett et al., 2020; Hardebolle et al., 2022). This study reinforces the view that technological familiarity without ethical grounding increases the likelihood of academic dishonesty. The interaction between AI exposure, policy effectiveness, and ethical engagement suggests that academic institutions must adopt a holistic, inclusive strategy to safeguard integrity. Through targeted ethics instruction, coherent policies, and community involvement, the ethical integration of AI in education can be both achievable and sustainable.

6. Implications for Policy and Practice

The findings of this study have significant implications for educational policy and practice, emphasising the need for comprehensive strategies to address the ethical challenges posed by AI tools. Educational institutions must prioritise the integration of ethics education into curricula to build students' awareness of responsible AI use. This involves embedding AI ethics as a core component in both technical and non-technical courses to foster a culture of integrity. Robust policy frameworks are critical to mitigating academic misconduct. Institutions should develop clear, enforceable policies that outline acceptable AI usage and

the consequences of unethical behaviour. Regular reviews and updates of these policies are necessary to keep pace with advancements in AI technologies. Additionally, training programmes for educators can equip them to guide students in understanding the ethical dimensions of AI tools. Collaboration between academia and industry is essential to align academic policies with real-world applications. Industry partnerships can provide students with practical insights into ethical AI use, preparing them for professional challenges. Furthermore, institutional support systems, such as workshops and mentorship programmes, can reinforce ethical behaviour among students and staff. Ultimately, addressing the dual impact of AI requires a multifaceted approach that combines policy, education, and practice. By fostering a culture of accountability and ethical awareness, institutions can ensure the responsible integration of AI technologies into education while upholding academic integrity.

7. Conclusion

This study examined the relationship between students' familiarity with AI tools and their ethical engagement, highlighting how technological exposure influences academic integrity. The results revealed a strong negative correlation between AI exposure and ethical behaviour, and a positive correlation with malpractice trends. These findings underscore the complex nature of AI in educational contexts—it offers substantial learning advantages while simultaneously presenting ethical vulnerabilities. Education policies showed only a modest effect in promoting ethical engagement, suggesting that policy alone is insufficient. This supports the argument that institutional efforts must be accompanied by ethics education and stakeholder participation. Ethical engagement itself emerged as a protective factor against misconduct, affirming the importance of pedagogical strategies like peer learning, case analysis, and ethical mentoring. Demographic variables such as age, academic level, and gender also played roles in ethical disposition, with younger and early-year students exhibiting higher risk profiles. These insights point to the need for tailored ethics interventions and inclusive policymaking. The study contributes to the growing body of literature emphasising the moral responsibilities associated with AI in education. A multi-pronged approach—combining curriculum reform, ethical awareness, and consistent policy enforcement—is essential for fostering academic integrity and preparing students for ethical decision-making beyond the classroom.

8. Limitations and Future Directions

While this study provides valuable insights, several limitations should be acknowledged. First, the study was conducted at a single institution, which may limit the generalisability of the findings to other academic settings. Future research should consider multi-institutional studies to capture a broader perspective on AI's impact on academic integrity. Second, the reliance on self-reported data may introduce response bias, as participants might underreport unethical behaviours. Employing mixed-method approaches, including qualitative interviews, could enhance the reliability of future findings. Additionally, the study focused primarily on undergraduate students, leaving the experiences of graduate students and faculty members underexplored. Future studies could investigate these groups to gain a more comprehensive

understanding of how AI affects academic integrity across various educational levels. Longitudinal research is also recommended to examine the evolving relationship between AI exposure and ethical engagement over time. Lastly, future research should explore the effectiveness of specific interventions, such as AI ethics courses or policy reforms, in promoting ethical behaviour. By addressing these limitations, future studies can provide deeper insights into mitigating the ethical challenges posed by AI in education while maximising its potential benefits.

9. References

- Adams, C., Pente, P., Lernermeier, G., Turville, J., & Rockwell, G. (2022). Artificial intelligence and teachers' new ethical obligations. *The International Review of Information Ethics*, 31(1). <https://doi.org/10.29173/irie483>
- Adiyono, A., Suwartono, T., Nurhayati, S., Dalimarta, F. F., & Wijayanti, O. (2025). Impact of artificial intelligence on student reliance for exam answers: A case study in IRCT Indonesia. *International Journal of Learning, Teaching and Educational Research*, 24(3), 519–544. <https://doi.org/10.26803/ijlter.24.3.22>
- Aluko, H., Offiah, G., Aluko, A., Ogunjimi, F., Aluko, A., Alalade, F., Ukeje, I.O, Nwani, C. (2025). Exploring the effectiveness of AI-generated learning materials in facilitating active learning strategies and knowledge retention in higher education. *International Journal of Organizational Analysis*. <http://dx.doi.org/10.1108/IJOA-07-2024-4632>
- Alutu, A. N. G., & Aluede, O. (2006). Secondary schools students' perception of examination malpractices and examination ethics. *Journal of Human Ecology*, 20(4), 295–300. <http://krepublishers.com/02-Journals/JHE/JHE-20-0-000-000-2006-Web/JHE-20-4-000-000-2006-Abstract-PDF/JHE-20-4-295-300-2006-1510-%20Alutu-A-N-G/JHE-20-4-295-300-2006-1510-%20Alutu-A-N-G-Text.pdf>
- Amran, N. A., Nor, M. N. M., Purnamasari, P., & Hartanto, R. (2021). Perspectives on unethical behaviors among accounting students in emerging markets. *International Journal of Innovative Research and Scientific Studies*, 4(4), 247–257. <https://doi.org/10.53894/ijirss.v4i4.267>
- Bu, Q. (2022). Ethical risks in integrating artificial intelligence into education and potential countermeasures. *Science Insights*, 41(1), 561–566. <https://doi.org/10.15354/si.22.re067>
- Burton, E., Goldsmith, J., Koenig, S., Kuipers, B., Mattei, N., & Walsh, T. (2017). Ethical considerations in artificial intelligence courses. *AI Magazine*, 38(2), 22. <https://doi.org/10.1609/aimag.v38i2.2731>
- Caprioglio, A., & Paglia, L. (2023). Fake academic writing: Ethics during chatbot era. *PubMed*, 24(2), 88–89. <https://doi.org/10.23804/ejpd.2023.24.02.01>
- Chang, D. H., Lin, M. P.-C., Hajian, S., & Wang, Q. Q. (2023). Educational design principles of using AI chatbot that supports self-regulated learning in education: Goal setting, feedback, and personalization. *Sustainability*, 15(17), 12921. <https://doi.org/10.3390/su151712921>
- Cotton, D. R. E., Cotton, P. A., & Shipway, J. R. (2023). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International*, 61(2), 228–239. <https://doi.org/10.1080/14703297.2023.2190148>
- Cronan, T. P., Mullins, J. K., & Douglas, D. E. (2015). Further understanding factors that explain freshman business students' academic integrity intention and behavior:

- Plagiarism and sharing homework. *Journal of Business Ethics*, 147(1), 197–220.
<https://doi.org/10.1007/s10551-015-2988-3>
- Eloy, J. A., Svider, P. F., Patel, D., Setzen, M., & Baredes, S. (2013). Comparison of plaintiff and defendant expert witness qualification in malpractice litigation in otolaryngology. *Otolaryngology–Head and Neck Surgery*, 148(5), 764–769.
<https://doi.org/10.1177/0194599813481943>
- Garrett, N., Beard, N., & Fiesler, C. (2020). More than “if time allows.” *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society* (pp. 272–278).
<https://doi.org/10.1145/3375627.3375868>
- Gartner, S., & Krasna, M. (2023). *Artificial intelligence in education – Ethical framework*.
<https://doi.org/10.1109/meco58584.2023.10155012>
- Ghotbi, N., & Ho, M. T. (2021). Moral awareness of college students regarding artificial intelligence. *Asian Bioethics Review*, 13(4), 421–433.
<https://doi.org/10.1007/s41649-021-00182-2>
- Hardebolle, C., Kovacs, H., Simkova, E., Pinazza, A., Carla, M., Jermann, P., Tormey, R., & Zufferey, J. D. (2022). A game-based approach to develop engineering students’ awareness about artificial intelligence ethical challenges. *Proceedings of the SEFI Annual Conference*. Universitat Politècnica de Catalunya.
<https://doi.org/10.5821/conference-9788412322262.1283>
- Harper, M. G. (2006). High tech cheating. *Nurse Education Today*, 26(8), 672–679.
<https://doi.org/10.1016/j.nedt.2006.07.012>
- Hidayat-ur-Rehman, I., & Ibrahim, Y. (2023). Exploring factors influencing educators’ adoption of ChatGPT: A mixed method approach. *Interactive Technology and Smart Education*, 21(4). <https://doi.org/10.1108/itse-07-2023-0127>
- Holmes, W., Porayska-Pomsta, K., Holstein, K., Sutherland, E., Baker, T., Shum, S. B., Santos, O. C., Rodrigo, M. T., Cukurova, M., Bittencourt, I. I., & Koedinger, K. R. (2021). Ethics of AI in education: Towards a community-wide framework. *International Journal of Artificial Intelligence in Education*, 32(1), 504–526.
<https://doi.org/10.1007/s40593-021-00239-1>
- Hua, J. (2023). Beyond exams: Investigating AI tool impact on student attitudes, ethical awareness, and academic dishonesty in online college assessments. *International Journal of Educational Management and Development Studies*, 4(4), 160–185.
<https://doi.org/10.53378/353030>
- Huang, C., Samek, T., & Shiri, A. (2021). AI and ethics: Ethical and educational perspectives for LIS. *Journal of Education for Library and Information Science*, 62(4), 351–365. <https://doi.org/10.3138/jelis-62-4-2020-0106>
- Irfan, M., Aldulaylan, F., & Alqahtani, Y. S. (2023). Ethics and privacy in Irish higher education: A comprehensive study of artificial intelligence (AI) tools implementation at University of Limerick. *Global Social Sciences Review*, 8(2), 201–210. [https://doi.org/10.31703/gssr.2023\(viii-ii\).19](https://doi.org/10.31703/gssr.2023(viii-ii).19)
- Katznelson, G., & Gerke, S. (2021). The need for health AI ethics in medical school education. *Advances in Health Sciences Education*, 26, 1447–1458.
<https://doi.org/10.1007/s10459-021-10040-3>
- Kim, H. (2022). Suggestions on teaching and learning AI ethics using cooperative learning method in elementary and secondary education. *J-Institute*, 7(1), 65–75.
<https://doi.org/10.22471/ai.2022.7.1.65>

- Koos, S., & Wachsmann, S. (2023). Navigating the impact of ChatGPT/GPT4 on legal academic examinations: Challenges, opportunities, and recommendations. *Media Iuris*, 6(2), 255–270. <https://doi.org/10.20473/mi.v6i2.45270>
- LaDuke, R. D. (2013). Academic dishonesty today, unethical practices tomorrow? *Journal of Professional Nursing*, 29(6), 402–406. <https://doi.org/10.1016/j.profnurs.2012.10.009>
- Litzky, B. E., & Oz, E. (2008). Ethical issues in information technology. *International Journal of Information and Communication Technology Education*, 4(2), 67–83. <https://doi.org/10.4018/jicte.2008040106>
- Lozada, R. F. L., Aguayo, E. M. L., Suquilanda, M. de J. E., Pico, N. de J. A., & Vélez, G. E. Q. (2023). Los riesgos de la inteligencia artificial en la educación. *Ciencia Latina Revista Científica Multidisciplinar*, 7(5), 7219–7234. https://doi.org/10.37811/cl_rcm.v7i5.8301
- Luciano, R. G. (2024). The dual impact of ChatGPT on learning and ethics among Bachelor of Science in Information Technology (BSIT) students. *International Journal of Learning, Teaching and Educational Research*, 23(12), 78–95. <https://doi.org/10.26803/ijlter.23.12.5>
- Mackay, S. (2023). Factors influencing academic integrity violations. In *Proceedings of the 54th ACM Technical Symposium on Computer Science Education V. 2 (SIGCSE 2023)*. Association for Computing Machinery. <https://doi.org/10.1145/3545947.3576286>
- Măță, L., Lazăr, I. M., & Ghiațău, R. (2020). Exploring academic dishonesty practices among science education university students. *Journal of Baltic Science Education*, 19(1), 91–107. <https://doi.org/10.33225/jbse/20.19.91>
- Mittelstadt, B. (2019). Principles alone cannot guarantee ethical AI. *Nature Machine Intelligence*, 1(11), 501–507. <https://doi.org/10.1038/s42256-019-0114-4>
- Mohammadkarimi, E. (2023). Teachers' reflections on academic dishonesty in EFL students' writings in the era of artificial intelligence. *Journal of Applied Learning and Teaching*, 6(2). <https://doi.org/10.37074/jalt.2023.6.2.10>
- Morley, J., Machado, C. C. V., Burr, C., Cowls, J., Joshi, I., Taddeo, M., & Floridi, L. (2020). The ethics of AI in health care: A mapping review. *Social Science & Medicine*, 260, 113172. <https://www.sciencedirect.com/science/article/pii/S0277953620303919>
- Naranjo, B. M. M., Izurieta, C. E. A., Leica, L. R. T., Morrillo, C. F. S., & Salazar, A. J. (2023). Ética y responsabilidad en la implementación de la inteligencia artificial en la educación. *Ciencia Latina Revista Científica Multidisciplinar*, 7(6), 2054–2076. https://doi.org/10.37811/cl_rcm.v7i6.8833
- Nykonenko, A. (2023). The impact of artificial intelligence on modern education: Prospects and challenges. *Študijski Īntelekt*, 28(2), 10–15. <https://doi.org/10.15407/jai2023.02.010>
- Owusu, G., Bekoe, R., Koomson, T., & Simpson, S. (2018). Temptation and the propensity to engage in unethical behaviour. *International Journal of Ethics and Systems*, 35. <https://doi.org/10.1108/IJOES-04-2018-0057>
- Peled, Y., Eshet, Y., Barczyk, C., & Grinautsky, K. (2018). Predictors of academic dishonesty among undergraduate students in online and face-to-face courses. *Computers & Education*, 131. <https://doi.org/10.1016/j.compedu.2018.05.012>
- Perkins, M. (2023). Academic integrity considerations of AI large language models in the post-pandemic era: ChatGPT and beyond. *Journal of University Teaching & Learning Practice*, 20(2). <https://doi.org/10.53761/1.20.02.07>

- Petelka, J., Finn, M., Roesner, F., & Shilton, K. (2022). Principles matter: Integrating an ethics intervention into a computer security course. <https://doi.org/10.1145/3478431.3499275>
- Rashid, T., & Asghar, H. M. (2016). Technology use, self-directed learning, student engagement, and academic performance: Examining the interrelations. *Computers in Human Behavior*, 63, 604–612. <https://doi.org/10.1016/j.chb.2016.05.084>
- Reed, D. A., Windish, D. M., Levine, R. B., Kravet, S. J., Wolfe, L., & Wright, S. M. (2008). Do fears of malpractice litigation influence teaching behaviors? *Teaching and Learning in Medicine*, 20(3), 205–211. <https://doi.org/10.1080/10401330802199443>
- Riemenschneider, C. K., Leonard, L. N. K., & Manly, T. S. (2011). Students' ethical decision-making in an information technology context: A theory of planned behavior approach. *Journal of Information Systems Education*, 22(3), 203–214. <https://jise.org/Volume22/n3/JISEv22n3p203.html>
- Sağın, F. G., Özkaya, A. B., Tengiz, F., Geyik, Ö. G., & Geyik, C. (2023). Current evaluation and recommendations for the use of artificial intelligence tools in education. *Türk Biyokimya Dergisi*, 48(6), 620–625. <https://doi.org/10.1515/tjb-2023-0254>
- Saylam, S., Duman, N., Yildirim, Y., & Satsevich, K. (2023). Empowering education with AI: Addressing ethical concerns. *London Journal of Social Sciences*, 6, 39–48. <https://doi.org/10.31039/ljss.2023.6.103>
- Smith, B. (2011). Awareness, interest, sensitivity, and advocacy – AISA: An educational take-away for business ethics students. *American Journal of Business Education*, 2(9), 109. <https://doi.org/10.19030/ajbe.v2i9.4618>
- Tedesco, A. L., & Ferreira, J. D. L. (2023). Ética e integridade acadêmica na pós-graduação em educação em tempos de inteligência artificial. *Horizontes*, 41(1), e023032–e023032. <https://doi.org/10.24933/horizontes.v41i1.1620>
- Ukeje, I. O., Elom, C. O., Ayanwale, M. A., Umoke, C. C., & Nwangbo, S. O. (2024). Exploring an innovative educational governance framework: Leveraging artificial intelligence in a stakeholder-driven “open campus model” in South East Nigerian universities. *International Journal of Learning, Teaching and Educational Research*, 23(6), 416–440. <https://doi.org/10.26803/ijlter.23.6.19>
- Ulman, M., Harris, A. L., Marreiros, C., Quaresma, R., & Ganiyev, M. (2019). What do college students do and think about IT ethics? *Journal of Applied Learning & Teaching*, 2, 49–58. <https://doi.org/10.29007/jw8j>
- Underwood, J., & Szabo, A. (2003). Academic offences and e-learning: Individual propensities in cheating. *British Journal of Educational Technology*, 34(4), 467–477. <https://doi.org/10.1111/1467-8535.00343>
- Wang, Y.-Y., Wang, Y.-S., & Wang, Y.-M. (2020). What drives students' internet ethical behaviour: An integrated model of the theory of planned behaviour, personality, and internet ethics education. *Behaviour & Information Technology*, 4(3), 1–23. <https://doi.org/10.1080/0144929x.2020.1829053>
- Yu, L., & Yu, Z. (2023). Qualitative and quantitative analyses of artificial intelligence ethics in education using VOSviewer and CitNetExplorer. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1061778>

Appendix 1: Research Questionnaire

Appendix 1: Research Questionnaire AI, Technology, and Academic Integrity Survey

Welcome to the AI, Technology, and Academic Integrity Survey! This survey aims to explore how students interact with artificial intelligence (AI) and technology tools in academic settings and their impact on ethical practices. Your responses will help us understand the challenges and opportunities associated with technology use in education. Your participation is greatly appreciated!

Section A: Demographic Data

Socioeconomic Background: Rich ☐ Poor ☐

Gender: Male ☐ Female ☐

Age range	
18-20	☐
21-23	☐
24-26	☐
27-30	☐

Education level/Position	
Year 1	☐
Year 2	☐
Year 3	☐
Year 4	☐

Technology Proficiency:	
Basic:	☐
Intermediate	☐
Experienced	☐

Institution:	

Field of Study:	

S/N	Items	SA	A	N	D	SD
1	I am familiar with various AI and technology tools commonly used in academic settings.					
2	I believe that ethical considerations are important when using AI and technology tools for academic purposes.					
3	I often use AI and technology tools to enhance my academic performance.					
4	I feel confident in my ability to use AI and technology tools ethically in academic tasks.					
5	I am aware of the potential consequences of unethical use of AI and technology tools in academic settings.					
6	I believe that academic integrity is essential, even when using AI and technology tools.					
7	I have witnessed or experienced instances of academic malpractice facilitated by AI and technology tools.					
8	I feel pressure to engage in unethical practices when using AI and technology tools to meet academic requirements.					
9	I trust that my peers adhere to ethical standards when using AI and technology tools for academic purposes.					
10	I am proactive in seeking guidance or support to ensure ethical use of AI and technology tools in my academic work.					

11	I believe that educational institutions should provide clearer guidelines on the ethical use of AI and technology tools.					
12	I feel confident in my ability to discern between ethical and unethical uses of AI and technology tools in academic contexts.					
13	I perceive AI and technology tools as valuable resources for learning and academic growth.					
14	I am motivated to explore new AI and technology tools to improve my academic performance.					
15	I believe that promoting ethical use of AI and technology tools is crucial for maintaining academic integrity in educational settings.					