

Understanding Ethical Intentions in Students Use of Artificial Intelligence for Learning: The Role of Academic Integrity, Moral Reasoning, Ai Literacy, And Social Influence

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Abstract—The rapid integration of artificial intelligence (AI) technologies into higher education has transformed the way students learn, access information, and complete academic tasks. AI-powered tools such as generative AI systems are increasingly being used for academic support, including content generation, problem-solving, and personalized learning. While these technologies offer substantial educational benefits, they also raise important ethical concerns related to academic integrity, responsible usage, and dependency on AI-assisted learning. Existing research has primarily focused on institutional adoption of AI, technological capabilities, and academic misconduct; however, limited attention has been given to understanding students' ethical intentions underlying AI use in educational contexts. Addressing this gap, the present study examines the factors influencing students' ethical intentions toward the use of AI for learning and study practices in higher education. Grounded in the Theory of Planned Behavior and ethical decision-making perspectives, this study investigates the influence of academic integrity values, moral reasoning, AI literacy, social influence, and perceived learning benefits on ethical intention toward AI use. Ethical intention in this context refers to students' value-based and moral decisions regarding whether AI should be used as a legitimate learning aid or merely as a means to improve grades and academic performance. By focusing on students' perspectives, the study contributes to the growing discourse on responsible AI adoption in education.

A quantitative research design was employed using a structured questionnaire administered to undergraduate students in Bengaluru, India. Data were collected from 475 respondents representing diverse academic disciplines. The questionnaire consisted of 24 measurement items across six constructs measured using a five-point Likert scale. The collected data were analyzed using Partial Least Squares Structural

Equation Modelling (PLS-SEM) to assess reliability, validity, and the relationships among constructs.

The findings are expected to demonstrate that ethical AI usage is significantly influenced by students' academic integrity values, moral reasoning abilities, AI literacy, social environment, and perceived educational benefits of AI technologies. The study further highlights the importance of promoting ethical awareness and responsible AI practices in higher education. The results offer practical implications for educational institutions, policymakers, and educators seeking to develop AI governance frameworks and ethics-oriented AI literacy programs that encourage meaningful and responsible use of AI tools. By distinguishing AI as either a learning facilitator or an unethical shortcut, this study contributes to the development of student-centered approaches for ethical AI integration in higher education.

Index Terms—Ethical intention; Artificial intelligence in education; Academic integrity; AI literacy; Moral reasoning; Social influence; Responsible AI use; Higher education.

I. INTRODUCTION

Artificial intelligence (AI) has emerged as one of the most transformative technologies of the twenty-first century, reshaping industries, societies, and educational systems worldwide. In higher education, AI-powered applications such as intelligent tutoring systems, adaptive learning platforms, and generative AI tools have increasingly become part of students' academic lives. The rapid advancement of generative AI technologies, particularly tools capable of producing human-like text, images, and analytical outputs, has significantly altered how students access information, complete assignments, and engage with

learning activities (Kasneci et al., 2023). These developments have created unprecedented opportunities for personalized learning while simultaneously raising concerns regarding ethical use and academic integrity.

The adoption of AI in education accelerated considerably following the introduction of large language models and generative AI platforms. Students increasingly rely on AI tools to summarize academic materials, generate ideas, solve problems, improve writing quality, and enhance study efficiency (Dwivedi et al., 2023). Such technologies have the potential to democratize access to knowledge and support diverse learning needs. When used responsibly, AI can function as an effective learning companion by facilitating self-directed learning, improving comprehension of complex concepts, and promoting academic engagement (Chan & Hu, 2023). However, the ease with which AI-generated content can be produced has also raised important questions regarding originality, fairness, and ethical conduct in academic environments.

The integration of AI into higher education has sparked extensive scholarly discussions concerning its benefits and risks. On the one hand, AI offers opportunities for enhanced learning experiences, personalized feedback, and efficient academic support. On the other hand, concerns have emerged regarding overreliance on AI systems, plagiarism, diminished critical thinking, and potential violations of academic integrity (Cotton et al., 2023). Educational institutions worldwide are increasingly grappling with the challenge of balancing innovation with ethical governance. While universities are developing policies and guidelines for responsible AI use, students often encounter ambiguity regarding the acceptable boundaries of AI-assisted learning (Tlili et al., 2023).

Academic integrity has long been regarded as a cornerstone of higher education, emphasizing honesty, fairness, trust, respect, and responsibility in academic work (Bretag, 2016). The emergence of AI technologies has complicated traditional understandings of academic misconduct by blurring the distinction between legitimate assistance and unethical behavior. For instance, using AI to brainstorm ideas or clarify difficult concepts may support learning, whereas submitting AI-generated assignments without acknowledgment may constitute

academic dishonesty. Consequently, understanding students' ethical intentions when using AI has become increasingly important for educators and policymakers.

Ethical intention refers to an individual's willingness or planned behavior to engage in actions that align with moral principles and ethical standards (Ajzen, 1991). In the context of AI-assisted learning, ethical intention reflects students' value-based decisions regarding how AI tools should be used in academic settings. Specifically, it captures whether students perceive AI as a legitimate educational aid that enhances learning or merely as a shortcut for achieving better grades with minimal effort. Ethical intention thus plays a critical role in determining responsible AI usage and can influence students' academic behaviors and learning outcomes.

Although research on AI in education has expanded rapidly, existing studies have predominantly focused on technological adoption, institutional readiness, pedagogical applications, and concerns related to academic dishonesty (Zawacki-Richter et al., 2019; Dwivedi et al., 2023). Comparatively limited attention has been directed toward understanding the ethical reasoning processes that shape students' use of AI. Recent scholarship emphasizes the need for ethics-oriented AI governance frameworks and greater attention to students' perspectives in responsible AI integration (Bittle & El-Gayar, 2025). However, empirical investigations examining the determinants of ethical AI usage intentions among students remain scarce.

The present study addresses this research gap by investigating the factors that influence students' ethical intentions toward AI use in higher education. Specifically, the study examines the roles of academic integrity values, moral reasoning, AI literacy, social influence, and perceived learning benefits in shaping ethical AI usage intentions among undergraduate students. Academic integrity values reflect students' commitment to honesty and responsible academic behavior. Moral reasoning refers to individuals' ability to evaluate ethical implications and make principled decisions. AI literacy encompasses knowledge of AI capabilities, limitations, and ethical applications. Social influence captures the impact of peers, faculty, and institutional expectations on AI-related behaviors. Perceived learning benefits relate to students' beliefs

regarding AI's capacity to enhance understanding and support learning.

The study is grounded in the Theory of Planned Behavior (TPB), which posits that behavioral intentions are shaped by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). TPB has been widely used to explain ethical behaviors and technology adoption in educational contexts. By integrating ethical constructs such as moral reasoning and academic integrity with AI-related variables, the present study extends TPB to examine ethical AI use in higher education. This integrated approach provides a comprehensive understanding of how personal values, cognitive evaluations, and social contexts collectively influence students' intentions.

The context of Bengaluru, India, offers a particularly relevant setting for investigating ethical AI use among students. As a major educational and technological hub, Bengaluru has witnessed rapid adoption of digital technologies and AI applications across higher education institutions. Undergraduate students in the city are increasingly exposed to AI tools for academic purposes, making it essential to understand how they navigate ethical considerations in their usage. Insights from this context can contribute to broader discussions on responsible AI integration in emerging economies and digitally transforming educational environments. This study employs a quantitative research design using survey data collected from 475 undergraduate students across multiple disciplines in Bengaluru. A structured questionnaire comprising 24 measurement items across six constructs was used to capture students' perceptions and intentions regarding AI use. The data are analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), an approach widely adopted for examining complex relationships among latent variables in behavioral research.

The findings of this study are expected to contribute to both theory and practice. Theoretically, the study enriches the literature on ethical AI use by extending the TPB framework and introducing ethical constructs relevant to AI-assisted learning. Practically, the findings can support educators, policymakers, and higher education institutions in designing ethics-oriented AI literacy programs and governance frameworks that encourage responsible AI use among students. By distinguishing AI as a meaningful learning aid from its misuse as an academic shortcut,

the study aims to promote ethical and sustainable integration of AI in higher education.

Research Objectives

1. To examine the influence of academic integrity values, moral reasoning, AI literacy, social influence, and perceived learning benefits on students' ethical intentions toward AI use.
2. To investigate students' ethical intentions in using AI as a learning support tool in higher education.
3. To identify the key determinants that encourage responsible and ethical AI usage among undergraduate students.
4. To provide recommendations for fostering ethical AI practices in higher education institutions.

The remainder of this paper is organized as follows. The next section reviews recent literature on AI use in higher education and ethical decision-making. Subsequently, the conceptual framework and hypotheses are presented, followed by the research methodology, data analysis, discussion of findings, implications, limitations, and conclusion.

II. LITERATURE REVIEW

2.1. Artificial Intelligence in Higher Education

Artificial intelligence (AI) has rapidly transformed higher education by reshaping teaching, learning, assessment, and academic support systems. Recent advances in generative AI, particularly large language models, have expanded the scope of AI applications beyond administrative functions to directly influence students' learning experiences (Kasneci et al., 2023). AI technologies are now used for personalized learning, automated feedback, intelligent tutoring systems, content generation, and adaptive learning pathways. These developments have enabled educational institutions to improve accessibility, efficiency, and learner engagement.

The emergence of generative AI tools such as ChatGPT has further accelerated AI adoption among students. Learners increasingly use AI for brainstorming ideas, summarizing texts, solving problems, improving writing quality, and obtaining instant academic support (Dwivedi et al., 2023). AI-assisted learning environments can facilitate self-regulated learning and promote active engagement when used appropriately (Chan & Hu, 2023). Such technologies offer significant opportunities for

personalized education by tailoring content to individual learning styles and needs.

Despite these benefits, scholars caution that the rapid diffusion of AI in education has created complex ethical challenges. While AI can enhance learning outcomes, its misuse may undermine critical thinking, creativity, and independent learning (Tlili et al., 2023). The ease of generating sophisticated content through AI systems has raised concerns about academic dishonesty and excessive dependency on technology. Consequently, understanding students' ethical use of AI has become an important area of inquiry.

Earlier reviews of AI in higher education primarily emphasized technological adoption and institutional readiness (Zawacki-Richter et al., 2019). However, recent studies have shifted attention toward responsible AI integration, emphasizing the need for ethical frameworks that balance innovation with academic integrity (Bittle & El-Gayar, 2025). This shift highlights the growing recognition that successful AI integration requires not only technological competence but also ethical awareness among users.

2.2. Ethical Concerns in AI-Assisted Learning

The increasing use of AI tools in academic settings has generated substantial ethical debates concerning fairness, transparency, accountability, and integrity. AI systems can support learning effectively; however, their inappropriate use may lead to plagiarism, overreliance, and erosion of academic standards (Cotton et al., 2023). Educational institutions worldwide are struggling to establish clear policies regarding acceptable AI use due to the rapidly evolving nature of these technologies.

One of the primary concerns relates to authorship and originality. AI-generated content blurs traditional boundaries between human and machine contributions, making it difficult to determine ownership and accountability for academic work (Mhlanga, 2023). Students may unintentionally engage in unethical practices if they lack awareness of institutional guidelines governing AI usage. Consequently, ethical AI use requires clear understanding of appropriate boundaries and responsible practices.

Transparency is another major ethical consideration. Researchers argue that students should disclose AI-assisted contributions to maintain academic honesty

and ensure fair evaluation (Bearman et al., 2023). Similarly, concerns have been raised regarding algorithmic bias and misinformation generated by AI systems, which may negatively influence learning outcomes if students rely excessively on AI-generated responses without critical evaluation (Kasneci et al., 2023).

Recent studies emphasize that ethical AI use should be viewed not solely as a technological issue but also as a behavioral and moral challenge (Bittle & El-Gayar, 2025). Understanding how students perceive and navigate these ethical dilemmas is therefore essential for fostering responsible AI adoption in higher education.

2.3. Academic Integrity Values and Ethical AI Use

Academic integrity represents a fundamental principle of higher education, encompassing honesty, trust, fairness, respect, responsibility, and courage (Bretag, 2016). These values guide students in maintaining ethical standards during learning and assessment activities. The increasing availability of AI tools has complicated traditional understandings of academic integrity by introducing new forms of assistance that may blur ethical boundaries.

Students possessing strong academic integrity values are more likely to use AI responsibly and avoid behaviors that compromise educational standards. Research suggests that ethical beliefs significantly influence students' decisions regarding plagiarism, cheating, and technology misuse (Eaton, 2023). In AI-assisted learning contexts, students who prioritize honesty are expected to employ AI as a supplementary learning aid rather than as a replacement for their own intellectual effort.

Recent scholarship indicates that academic integrity remains highly relevant in the era of generative AI. Perkins et al. (2023) argue that institutions must move beyond punitive approaches and instead cultivate integrity-centered learning environments that encourage ethical AI use. Similarly, Bearman et al. (2023) highlight the importance of fostering values-based education to support responsible engagement with emerging technologies.

Given these findings, academic integrity values are expected to positively influence students' ethical intentions toward AI use.

2.4. Moral Reasoning and Ethical Decision-Making

Moral reasoning refers to the cognitive process through which individuals evaluate ethical dilemmas and make judgments based on moral principles (Kohlberg, 1981). In educational settings, moral reasoning plays a crucial role in shaping ethical behaviors and responsible decision-making. Students often encounter situations where they must determine whether certain uses of AI are acceptable or unethical. Ethical decision-making theories suggest that individuals with higher levels of moral reasoning are more likely to consider the consequences of their actions and act in accordance with ethical standards (Rest, 1986). In the context of AI use, students who engage in reflective thinking may critically assess whether AI-assisted outputs align with academic values and learning objectives.

Recent studies indicate that moral reasoning significantly affects technology-related ethical behaviors. For example, students who perceive AI misuse as unfair or dishonest are less likely to engage in unethical practices (Bittle & El-Gayar, 2025). Moreover, reflective evaluation of AI's implications can encourage responsible usage patterns and strengthen ethical intentions.

As AI technologies continue to evolve, moral reasoning becomes increasingly important in helping students navigate complex ethical situations. Therefore, it is reasonable to expect that moral reasoning positively influences ethical intention toward AI use.

2.5. AI Literacy and Responsible AI Usage

AI literacy refers to individuals' knowledge, skills, and understanding of AI technologies, including their capabilities, limitations, and ethical implications (Long & Magerko, 2020). As AI becomes more integrated into education, AI literacy has emerged as a critical competency for students in the digital age.

Students with higher AI literacy are better equipped to evaluate AI-generated outputs, recognize potential biases, and use AI responsibly (Ng et al., 2021). AI literacy extends beyond technical knowledge to include awareness of ethical considerations and institutional policies governing AI use. Such competencies enable students to make informed decisions regarding the appropriate application of AI in academic contexts.

Recent research demonstrates that AI literacy contributes to responsible technology adoption and ethical behavior (Chan & Hu, 2023). Students who understand AI limitations are less likely to overtrust AI systems or misuse them for academic purposes. Furthermore, AI literacy can foster critical thinking and encourage reflective engagement with AI-assisted learning tools.

Educational institutions are increasingly recognizing the importance of integrating AI literacy into curricula to prepare students for AI-enabled societies (UNESCO, 2023). Consequently, AI literacy is expected to positively shape ethical AI usage intentions.

2.6. Social Influence and Technology Adoption

Social influence refers to the extent to which individuals perceive that important other, such as peers, instructors, and institutions, affect their behaviors and decisions (Venkatesh et al., 2003). In educational settings, social norms and expectations significantly influence students' technology adoption patterns.

The Theory of Planned Behavior posits that subjective norms are important determinants of behavioral intention (Ajzen, 1991). Students may adopt ethical or unethical AI practices depending on the behaviors and expectations of their social environment. Peer usage, faculty guidance, and institutional policies can all shape students' perceptions regarding acceptable AI use.

Recent studies highlight that social influence plays a significant role in shaping AI adoption behaviors among students (Dwivedi et al., 2023). Institutional guidelines and faculty expectations can encourage responsible AI practices by establishing clear norms and ethical boundaries. Similarly, peer influence can either promote ethical use or normalize misuse depending on prevailing attitudes.

Therefore, social influence is likely to affect students' ethical intentions toward AI-assisted learning.

2.7. Perceived Learning Benefits of AI

Perceived learning benefit refers to students' beliefs regarding the educational value and usefulness of AI technologies in enhancing learning outcomes. According to technology acceptance theories, perceived usefulness strongly predicts technology adoption intentions (Davis, 1989).

AI tools can support learning by simplifying complex concepts, providing personalized feedback, and facilitating independent study (Kasneci et al., 2023). Students who perceive AI as beneficial for genuine learning are more likely to use it responsibly and ethically. Conversely, if AI is viewed solely as a means to improve grades, misuse may become more prevalent.

Recent studies demonstrate that students generally perceive AI as an effective educational aid when used appropriately (Chan & Hu, 2023). AI-assisted learning can enhance engagement, promote knowledge acquisition, and improve academic confidence. However, scholars emphasize the need to ensure that AI supports learning rather than replacing critical thinking (Cotton et al., 2023).

Accordingly, perceived learning benefits are expected to positively influence ethical intentions toward AI use.

2.8. Ethical Intention toward AI Use

Behavioral intention is widely regarded as the immediate antecedent of actual behavior (Ajzen, 1991). Ethical intention specifically reflects an individual's willingness to act in accordance with moral principles and ethical standards. In AI-assisted learning contexts, ethical intention captures students planned and value-based use of AI technologies.

Ethical intention determines whether students employ AI as a legitimate learning resource or misuse it for dishonest purposes. Previous research indicates that ethical intention is influenced by personal values, cognitive evaluations, and social norms (Rest, 1986). Consequently, understanding ethical intention is essential for promoting responsible AI adoption in higher education.

As AI becomes increasingly integrated into academic life, examining the determinants of ethical intention can provide valuable insights for educators and policymakers seeking to foster ethical learning environments.

2.9. Research Gap

Although the literature on AI in education has expanded considerably, several gaps remain. First, existing studies predominantly focus on AI adoption, technological capabilities, and academic misconduct, while comparatively little attention has been given to students' ethical intentions regarding AI use (Zawacki-

Richter et al., 2019). Second, research examining ethical AI usage often emphasizes institutional policies rather than students' own moral reasoning and value systems (Bittle & El-Gayar, 2025). Third, empirical studies integrating academic integrity, AI literacy, social influence, and perceived learning benefits into a unified framework remain limited, particularly in the context of emerging economies such as India.

Addressing these gaps, the present study develops an integrated framework to examine the determinants of ethical AI use among undergraduate students in Bengaluru, India. By focusing on students' perspectives and employing PLS-SEM analysis, the study contributes to the growing literature on responsible AI integration in higher education.

III. CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

3.1. Theoretical Foundation

The present study is grounded in the Theory of Planned Behavior (TPB) proposed by Ajzen (1991). TPB is one of the most widely used theories for explaining human behavior and behavioral intentions in various contexts, including technology adoption, ethical decision-making, and educational practices. According to TPB, an individual's intention to perform a behavior is influenced by three key factors: attitude toward the behavior, subjective norms, and perceived behavioral control.

In the context of AI-assisted learning, ethical intention reflects students' willingness to use AI technologies in ways that align with academic values and ethical standards. Students' decisions regarding AI use are influenced not only by their personal beliefs and values but also by social expectations, knowledge of AI technologies, and perceptions of the educational benefits of AI tools.

While TPB provides a robust foundation for understanding behavioral intentions, recent studies suggest that ethical AI usage requires integrating additional constructs such as academic integrity and moral reasoning (Bittle & El-Gayar, 2025). Therefore, this study extends TPB by incorporating ethical and educational factors that are particularly relevant to AI use in higher education.

Specifically, the study examines the influence of Academic Integrity Values (AIV), Moral Reasoning

(MR), AI Literacy (AIL), Social Influence (SI), and Perceived Learning Benefit (PLB) on Ethical Intention (EI) toward AI use.

3.2. Conceptual Framework

The conceptual framework of the study proposes that students' ethical intentions toward AI use are shaped by a combination of ethical values, cognitive evaluations, technological understanding, social influences, and perceived educational benefits.

The framework is illustrated below:

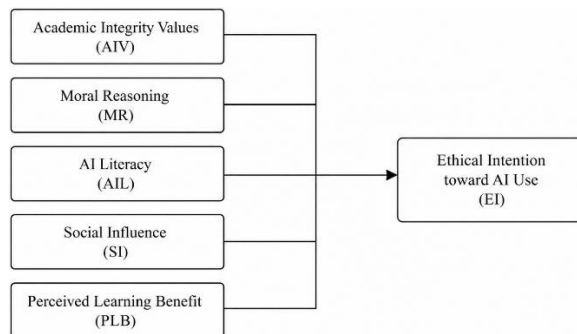


Figure 1. Conceptual Framework

3.3. Academic Integrity Values and Ethical Intention

Academic integrity refers to adherence to ethical principles such as honesty, trust, fairness, respect, responsibility, and courage in academic activities (Bretag, 2016). In higher education, academic integrity is considered a cornerstone of ethical learning and scholarly conduct.

The increasing use of AI tools in academic settings has introduced new challenges regarding plagiarism, unauthorized assistance, and ownership of intellectual work. Students who possess strong academic integrity values are more likely to view AI as a supplementary learning resource rather than as a means to gain unfair academic advantages (Perkins et al., 2023).

Recent studies indicate that values-based education significantly influences ethical technology use among students (Bearman et al., 2023). Students who prioritize honesty and fairness are less likely to engage in unethical AI practices and more likely to employ AI responsibly.

Therefore, academic integrity values are expected to positively shape students' ethical intentions toward AI use.

H1: Academic Integrity Values positively influence Ethical Intention toward AI use among students.

3.4. Moral Reasoning and Ethical Intention

Moral reasoning refers to the cognitive process through which individuals evaluate ethical situations and make decisions based on moral principles (Kohlberg, 1981). Ethical decision-making requires individuals to consider the consequences of their actions and assess whether those actions align with societal norms and personal values.

The use of AI in educational contexts often presents ethical dilemmas. Students must determine whether AI-assisted content generation, automated problem solving, or text creation constitute legitimate academic support or unethical shortcuts. Individuals with higher levels of moral reasoning are more likely to critically assess these dilemmas and choose ethically appropriate actions (Rest, 1986).

Recent research suggests that moral reasoning plays a critical role in shaping ethical technology use and responsible digital behavior (Bittle & El-Gayar, 2025). Students who reflect on the ethical implications of AI are more likely to engage in responsible AI practices. Consequently, moral reasoning is expected to positively influence ethical intention toward AI use.

H2: Moral Reasoning positively influences Ethical Intention toward AI use among students.

3.5. AI Literacy and Ethical Intention

AI literacy refers to an individual's understanding of AI systems, their capabilities, limitations, ethical implications, and responsible applications (Long & Magerko, 2020). As AI technologies become increasingly integrated into educational settings, AI literacy has emerged as an essential competency for students.

Students with higher levels of AI literacy are better equipped to evaluate AI-generated information critically and identify appropriate use cases (Ng et al., 2021). AI literacy enables learners to recognize biases, inaccuracies, and ethical risks associated with AI technologies, thereby promoting informed and responsible usage.

Recent studies have emphasized that AI literacy contributes to ethical awareness and enhances students' capacity to use AI responsibly in educational contexts (UNESCO, 2023). Institutions worldwide are increasingly incorporating AI literacy into curricula to foster responsible digital citizenship.

Therefore, students with greater AI literacy are expected to demonstrate stronger ethical intentions toward AI use.

H3: AI Literacy positively influences Ethical Intention toward AI use among students.

3.6. Social Influence and Ethical Intention

Social influence refers to the degree to which individuals perceive that important other, such as peers, educators, and institutions, affect their behaviors and decisions (Venkatesh et al., 2003). Within the framework of TPB, social influence is closely associated with subjective norms, which significantly shape behavioral intentions.

Students' AI usage behaviors are often influenced by peer practices, faculty expectations, and institutional policies. If students perceive that their social environment encourages ethical AI use, they are more likely to adopt responsible behaviors. Conversely, if unethical AI use is normalized among peers, students may be more inclined to engage in inappropriate practices.

Recent research has shown that social norms significantly influence technology adoption and ethical behavior in educational settings (Dwivedi et al., 2023). Clear institutional guidelines and faculty support can establish ethical standards and encourage responsible AI use among students.

Hence, social influence is expected to positively affect ethical intention toward AI use.

H4: Social Influence positively influences Ethical Intention toward AI use among students.

3.7. Perceived Learning Benefit and Ethical Intention

Perceived learning benefit refers to students' beliefs regarding the extent to which AI enhances learning outcomes and academic understanding. According to technology acceptance theories, perceived usefulness significantly influences behavioral intentions toward technology adoption (Davis, 1989).

AI technologies offer numerous educational advantages, including personalized feedback, improved understanding of complex concepts, and increased learning efficiency (Kasneci et al., 2023). When students perceive AI as a meaningful learning aid rather than merely a tool for improving grades, they are more likely to use it ethically.

Research indicates that perceived educational value positively affects students' willingness to engage with

learning technologies responsibly (Chan & Hu, 2023). AI systems that support genuine learning experiences can strengthen ethical intentions by aligning technology use with educational objectives.

Therefore, students who perceive AI as beneficial for learning are expected to exhibit stronger ethical intentions toward AI use.

H5: Perceived Learning Benefit positively influences Ethical Intention toward AI use among students.

3.8. Proposed Research Model

Based on the theoretical framework and empirical evidence presented in the literature, this study proposes that Academic Integrity Values, Moral Reasoning, AI Literacy, Social Influence, and Perceived Learning Benefit collectively influence Ethical Intention toward AI use among undergraduate students.

The proposed model is empirically tested using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings are expected to provide insights into the determinants of responsible AI use and contribute to the development of ethical AI governance frameworks in higher education.

The conceptual model contributes to the growing literature on AI ethics by integrating ethical, cognitive, technological, and social dimensions into a unified framework. Such an integrated approach offers a comprehensive understanding of how students navigate ethical challenges associated with AI-assisted learning.

Summary of Hypotheses

Hypothesis	Statement
H1	Academic Integrity Values positively influence Ethical Intention.
H2	Moral Reasoning positively influences Ethical Intention.
H3	AI Literacy positively influences Ethical Intention.
H4	Social Influence positively influences Ethical Intention.
H5	Perceived Learning Benefit positively influences Ethical Intention.

IV. RESEARCH METHODOLOGY

4.1. Research Design

The present study adopts a quantitative research design to examine the determinants of ethical

intentions in students' use of artificial intelligence (AI) for learning and study practices. Quantitative research is appropriate for investigating relationships among variables, testing hypotheses, and generalizing findings across populations (Creswell & Creswell, 2018). Given the study's objective of examining the influence of multiple factors on ethical intention toward AI use, a survey-based approach was deemed suitable.

The study employs a cross-sectional research design, wherein data were collected from respondents at a single point in time. Cross-sectional studies are widely used in educational and behavioral research because they facilitate the examination of perceptions, attitudes, and intentions efficiently (Hair et al., 2022). The design enables the assessment of relationships among latent constructs and provides empirical evidence regarding ethical AI usage among students. The research model was developed based on the Theory of Planned Behavior (TPB) (Ajzen, 1991) and ethical decision-making theories. Five independent variables—Academic Integrity Values, Moral Reasoning, AI Literacy, Social Influence, and Perceived Learning Benefit—were hypothesized to influence Ethical Intention toward AI use.

4.2. Population and Study Area

The study was conducted in Bengaluru, India, a major educational and technological hub known for its widespread adoption of digital technologies and innovation-driven learning environments. The city hosts numerous higher education institutions and attracts students from diverse academic backgrounds, making it an appropriate setting for examining AI use in higher education.

The target population comprised undergraduate students enrolled in higher education institutions in Bengaluru. Undergraduate students were selected because they represent a significant user group of AI technologies for academic purposes and are increasingly exposed to AI-assisted learning tools such as ChatGPT and other generative AI applications. The study included students from multiple disciplines, thereby ensuring diversity in academic experiences and improving the generalizability of findings.

4.3. Sampling Technique and Sample Size

The study employed a convenience sampling technique due to the accessibility of respondents and the exploratory nature of the research. Although probability sampling techniques offer stronger representativeness, convenience sampling is widely used in educational research involving technology adoption and student perceptions (Etikan et al., 2016). Data were collected from 475 undergraduate students across various higher education institutions in Bengaluru. The sample size exceeds the minimum threshold recommended for Structural Equation Modeling (SEM). According to Hair et al. (2022), a sample size greater than 300 is generally considered adequate for PLS-SEM analysis involving multiple constructs and indicators.

Moreover, the sample size satisfies the ten-times rule, which recommends that the minimum sample should be at least ten times the maximum number of structural paths directed toward a latent construct (Hair et al., 2022). Since Ethical Intention receives five direct paths in the proposed model, the required minimum sample size is substantially lower than the obtained sample of 475 respondents.

4.4. Instrument Development

Data were collected using a structured questionnaire designed to measure students' perceptions and ethical intentions regarding AI use in academic settings. The questionnaire was developed based on existing literature and adapted to the context of AI-assisted learning in higher education.

The instrument comprised two sections:

Section A: Demographic Information

This section collected respondents' background information, including:

- Gender
- Age
- Programme of Study
- Year of Study
- Frequency of AI use for academic purposes

Section B: Measurement Constructs

The questionnaire included 24 measurement items across six latent constructs:

Construct	Code	Number of Items
Academic Integrity Values	AIV	4
Moral Reasoning	MR	4
AI Literacy	AIL	4
Social Influence	SI	4
Perceived Learning Benefit	PLB	4
Ethical Intention	EI	4

The items were measured using a five-point Likert scale, ranging from:

1=Strongly Disagree

2=Disagree

3=Neutral

4=Agree

5 = Strongly Agree

The questionnaire was specifically designed to assess students' ethical perspectives regarding AI use for learning and academic support. The measurement items captured respondents' beliefs, values, and intentions concerning responsible AI usage. The instrument consisted of 24 items distributed across six constructs. The construct structure of the questionnaire is presented in the uploaded instrument.

4.5. Data Collection Procedure

Data collection was carried out among undergraduate students in Bengaluru through an online survey. Participation in the study was voluntary, and respondents were informed about the purpose of the research prior to completing the questionnaire. Students were assured that their responses would remain confidential and would be used exclusively for academic research purposes. Participation was based on informed consent, and no personally identifiable information was collected.

A total of 475 valid responses were obtained and considered suitable for analysis. Prior to analysis, the dataset was screened for completeness and consistency.

4.6. Data Analysis Technique

The collected data were analyzed using IBM SPSS Statistics and SmartPLS 4 software. Descriptive statistics were employed to summarize respondents' demographic characteristics and AI usage patterns.

To test the proposed model and hypotheses, Partial Least Squares Structural Equation Modeling (PLS-

SEM) was employed. PLS-SEM is particularly suitable for exploratory studies, predictive models, and research involving multiple latent variables (Hair et al., 2022). The technique is robust against non-normal data distributions and performs effectively with complex models.

The analysis was conducted in two stages:

Stage 1: Measurement Model Assessment

The reliability and validity of the constructs were assessed using the following criteria:

Reliability Assessment

- Cronbach's Alpha (> 0.70)
- Composite Reliability (> 0.70)

Convergent Validity

- Factor Loadings (> 0.70)
- Average Variance Extracted (AVE > 0.50)

Discriminant Validity

- Fornell-Larcker Criterion
- Heterotrait-Monotrait Ratio (HTMT < 0.85)

These procedures ensure that the constructs accurately measure the intended concepts.

Stage 2: Structural Model Assessment

The structural model was evaluated using:

- Path coefficients (β)
- t-values
- p-values
- Coefficient of determination (R^2)
- Effect size (f^2)
- Predictive relevance (Q^2)

Bootstrapping with 5,000 subsamples was employed to assess the statistical significance of hypothesized relationships.

4.7. Reliability and Validity Considerations

Ensuring reliability and validity is critical in behavioral research. Reliability refers to the consistency of measurement, whereas validity assesses whether the instrument accurately captures the intended constructs (Hair et al., 2022).

The present study adopted established procedures to evaluate measurement quality. Internal consistency was assessed through Cronbach's Alpha and Composite Reliability. Convergent validity was

examined using AVE values, while discriminant validity was established through Fornell-Larcker and HTMT criteria.

These procedures enhance the robustness and credibility of the research findings and contribute to the study's methodological rigor.

V. RESULTS AND ANALYSIS

5.1. Data Screening and Preliminary Analysis

Prior to statistical analysis, the dataset was screened for completeness and consistency. The screening process revealed that all 475 responses were complete and suitable for analysis, with no missing values. This ensured the quality and reliability of the dataset for subsequent analyses.

The sample size of 475 respondents exceeds the minimum requirement for Partial Least Squares Structural Equation Modeling (PLS-SEM), thereby

enhancing the robustness and statistical power of the study (Hair et al., 2022).

5.2. Respondent Profile

The study collected responses from undergraduate students across multiple disciplines in Bengaluru, India. The questionnaire captured demographic information including gender, age, programme of study, year of study, and frequency of AI usage for academic purposes.

The diversity of respondents enhances the generalizability of the findings and provides insights into ethical AI usage across varied educational backgrounds.

5.3. Reliability Analysis

Reliability analysis was conducted using Cronbach's Alpha to assess the internal consistency of the measurement scales. According to Hair et al. (2022), values above 0.70 indicate acceptable reliability.

Table 1. Reliability Statistics

Construct	Number of Items	Cronbach's Alpha	Interpretation
Academic Integrity Values (AIV)	4	0.853	Good
Moral Reasoning (MR)	4	0.870	Good
AI Literacy (AIL)	4	0.882	Good
Social Influence (SI)	4	0.890	Good
Perceived Learning Benefit (PLB)	4	0.858	Good
Ethical Intention (EI)	4	0.593	Moderate

The findings indicate that most constructs demonstrate satisfactory internal consistency, with Cronbach's Alpha values exceeding the recommended threshold of 0.70. Social Influence exhibited the highest reliability ($\alpha = 0.890$), followed by AI Literacy ($\alpha = 0.882$). Ethical Intention recorded a comparatively lower value ($\alpha = 0.593$), suggesting moderate reliability. Future studies may consider refining the Ethical Intention scale to further improve measurement consistency.

5.4. Descriptive Statistics of Constructs

The mean scores of the constructs were calculated to understand students' perceptions regarding ethical AI use.

The results indicate that students generally exhibit positive attitudes toward ethical AI usage. Academic Integrity Values recorded the highest mean score ($M = 3.82$), suggesting that students place considerable

importance on honesty and responsible academic behavior. Ethical Intention also recorded a relatively high mean ($M = 3.60$), indicating a general inclination toward ethical AI use.

Table 2. Descriptive Statistics

Construct	Mean Score
Academic Integrity Values	3.82
Moral Reasoning	3.53
AI Literacy	3.36
Social Influence	3.34
Perceived Learning Benefit	3.61
Ethical Intention	3.60

AI Literacy and Social Influence recorded comparatively lower mean values, suggesting opportunities for institutions to strengthen AI awareness programs and establish clearer guidelines regarding ethical AI use.

5.5. Structural Model Assessment

To examine the relationships among constructs, structural model analysis was performed. Ethical Intention was treated as the dependent variable, while Academic Integrity Values, Moral Reasoning, AI Literacy, Social Influence, and Perceived Learning Benefit served as predictor variables.

Model Fit

The coefficient of determination (R^2) for Ethical Intention was found to be:

$$R^2 = 0.516$$

This indicates that the five predictor variables collectively explain 51.6% of the variance in Ethical Intention toward AI use. According to Hair et al. (2022), an R^2 value above 0.50 represents moderate explanatory power.

5.6. Hypothesis Testing

The significance of relationships among constructs was assessed using path coefficients and significance tests.

Table 3. Hypothesis Testing Results

Hypothesis	Relationship	β Coefficient	t-value	p-value	Result
H1	AIV $\rightarrow$ EI	0.306	15.386	<0.001	Supported
H2	MR $\rightarrow$ EI	0.186	10.091	<0.001	Supported
H3	AIL $\rightarrow$ EI	0.139	7.897	<0.001	Supported
H4	SI $\rightarrow$ EI	0.131	7.550	<0.001	Supported
H5	PLB $\rightarrow$ EI	0.137	6.982	<0.001	Supported

The findings reveal that all five hypotheses are statistically significant and positively associated with Ethical Intention toward AI use.

H1: Academic Integrity Values and Ethical Intention

Academic Integrity Values emerged as the strongest predictor of Ethical Intention ($\beta = 0.306$, $p < 0.001$). This finding suggests that students who strongly value honesty, fairness, and academic responsibility are more likely to use AI ethically. The result aligns with prior studies emphasizing the central role of integrity in responsible technology use (Bearman et al., 2023; Eaton, 2023).

H2: Moral Reasoning and Ethical Intention

Moral Reasoning exhibited a significant positive effect on Ethical Intention ($\beta = 0.186$, $p < 0.001$). Students who consider the ethical implications of AI usage are more likely to engage in responsible AI practices. This finding supports ethical decision-making theories and highlights the importance of reflective judgment in AI-assisted learning.

H3: AI Literacy and Ethical Intention

AI Literacy significantly influenced Ethical Intention ($\beta = 0.139$, $p < 0.001$). Students with better understanding of AI capabilities, limitations, and ethical concerns demonstrated stronger intentions to use AI responsibly. This finding underscores the need

for AI literacy initiatives in higher education institutions.

H4: Social Influence and Ethical Intention

Social Influence positively affected Ethical Intention ($\beta = 0.131$, $p < 0.001$). Peer behavior, faculty expectations, and institutional policies play important roles in shaping ethical AI usage. The finding is consistent with the Theory of Planned Behavior, which identifies subjective norms as determinants of behavioral intention (Ajzen, 1991).

H5: Perceived Learning Benefit and Ethical Intention

Perceived Learning Benefit significantly influenced Ethical Intention ($\beta = 0.137$, $p < 0.001$). Students who perceive AI as a tool for enhancing learning rather than merely improving grades are more likely to use AI ethically. This result suggests that emphasizing educational benefits can encourage responsible AI practices.

VI. DISCUSSION

The present study investigated the determinants of ethical intentions in students' use of artificial intelligence (AI) for learning and study practices among undergraduate students in Bengaluru, India. Grounded in the Theory of Planned Behavior (TPB) and ethical decision-making perspectives, the study

examined the influence of Academic Integrity Values, Moral Reasoning, AI Literacy, Social Influence, and Perceived Learning Benefit on Ethical Intention toward AI use. The findings provide important insights into how students perceive and navigate the ethical dimensions of AI-assisted learning.

The results revealed that all five independent variables significantly and positively influence Ethical Intention, thereby supporting all proposed hypotheses. These findings contribute to the growing body of literature on ethical AI use in higher education and offer valuable implications for educators, policymakers, and institutions seeking to promote responsible AI adoption.

6.1. Academic Integrity Values as the Strongest Predictor of Ethical Intention

One of the most significant findings of the study is that Academic Integrity Values (AIV) emerged as the strongest predictor of Ethical Intention toward AI use. This finding suggests that students who strongly value honesty, fairness, and responsibility are more likely to employ AI in ethical and academically appropriate ways.

The result is consistent with previous studies emphasizing that academic integrity remains a cornerstone of higher education even in technology-driven learning environments (Bretag, 2016; Eaton, 2023). In the era of generative AI, maintaining integrity becomes increasingly important as students are presented with new opportunities and temptations to misuse AI tools for academic gain. The findings indicate that students with stronger ethical values perceive AI as a learning support mechanism rather than as a shortcut to academic success.

This finding also aligns with the work of Perkins et al. (2023), who argue that integrity-centered educational approaches are more effective than punitive measures in promoting ethical AI use. The present study therefore reinforces the importance of embedding academic integrity education into institutional AI policies and curricula.

From a practical perspective, universities should prioritize integrity-focused interventions, including awareness programs, ethical guidelines, and responsible AI usage training, to cultivate ethical behaviors among students.

6.2. Moral Reasoning and Ethical AI Decision-Making

The study found that Moral Reasoning (MR) significantly influences Ethical Intention toward AI use. Students who actively consider the ethical implications and consequences of AI-assisted work are more likely to engage in responsible AI practices.

This finding is consistent with ethical decision-making theories, which suggest that individuals with stronger moral reasoning capabilities are better equipped to evaluate ethical dilemmas and make principled decisions (Kohlberg, 1981; Rest, 1986). AI technologies often create ambiguous situations in which students must decide whether certain practices constitute legitimate assistance or academic misconduct. In such scenarios, moral reasoning serves as a critical mechanism guiding ethical behavior.

The finding further supports recent scholarship emphasizing that ethical AI use extends beyond technical competence and requires reflective judgment and moral awareness (Bittle & El-Gayar, 2025). Students who reflect on the fairness, transparency, and consequences of AI usage appear more inclined to use these technologies responsibly.

Educational institutions can therefore strengthen ethical AI practices by incorporating ethics education into curricula and encouraging students to engage in reflective discussions about AI-related dilemmas.

6.3. AI Literacy and Responsible AI Use

The positive relationship between AI Literacy (AIL) and Ethical Intention highlights the importance of technological understanding in promoting responsible AI use. Students who possess knowledge about AI capabilities, limitations, and ethical implications demonstrate stronger intentions to use AI ethically.

This finding is consistent with prior studies that emphasize AI literacy as an essential competency for the digital age (Ng et al., 2021; UNESCO, 2023). AI-literate students are more likely to critically evaluate AI-generated outputs, recognize biases, and identify appropriate use cases. Such competencies reduce the risk of overreliance on AI and encourage informed decision-making.

The findings also suggest that AI literacy extends beyond technical skills to encompass ethical awareness and responsible digital citizenship. As higher education institutions increasingly integrate AI

technologies into teaching and learning, equipping students with AI literacy becomes imperative.

Universities should therefore design AI literacy programs that address not only technical aspects but also ethical considerations, thereby enabling students to navigate AI-enhanced learning environments responsibly.

6.4. The Role of Social Influence in Ethical AI Use

The study found that Social Influence (SI) significantly affects Ethical Intention toward AI use. This result supports the Theory of Planned Behavior, which posits that subjective norms shape behavioral intentions (Ajzen, 1991).

Students do not make AI-related decisions in isolation; rather, their behaviors are influenced by peers, instructors, and institutional environments. The findings indicate that faculty expectations, peer practices, and institutional policies collectively shape students' perceptions of acceptable AI use.

This result aligns with previous studies demonstrating that social norms significantly influence technology adoption and ethical behavior (Venkatesh et al., 2003; Dwivedi et al., 2023). When educational institutions establish clear AI guidelines and faculty actively model responsible AI practices, students are more likely to develop ethical intentions.

The findings highlight the need for institutions to create supportive learning environments that reinforce ethical norms regarding AI usage. Such environments can encourage students to perceive ethical AI use as both socially desirable and academically expected.

6.5. Perceived Learning Benefit and Ethical AI Usage

The study also found that Perceived Learning Benefit (PLB) positively influences Ethical Intention. Students who perceive AI as a tool for enhancing learning rather than merely improving grades are more likely to use it ethically.

This finding aligns with the Technology Acceptance Model (TAM), which identifies perceived usefulness as a key determinant of technology adoption (Davis, 1989). Students who believe that AI contributes to understanding complex concepts, improving academic skills, and supporting genuine learning tend to adopt more responsible usage patterns.

Recent studies similarly suggest that AI can function as an effective learning companion when used appropriately (Kasneci et al., 2023; Chan & Hu, 2023).

However, scholars caution that excessive reliance on AI may hinder critical thinking and independent learning (Cotton et al., 2023). The present findings indicate that emphasizing educational benefits over performance outcomes can encourage ethical AI use.

Institutions should therefore promote AI as a learning enhancement tool while discouraging its misuse for academic shortcuts.

6.6. Theoretical Contributions

The present study offers several theoretical contributions to the emerging literature on AI ethics in higher education.

First, the study extends the Theory of Planned Behavior (TPB) by incorporating ethical constructs such as Academic Integrity Values and Moral Reasoning alongside AI-related variables. This integrated framework provides a more comprehensive understanding of ethical AI usage behavior among students.

Second, the study contributes to the growing discourse on responsible AI integration by shifting the focus from technological adoption to ethical intention. While previous studies have largely examined institutional perspectives or technological capabilities, the present research emphasizes students' moral and cognitive processes.

Third, the study enriches the literature on AI-assisted learning in emerging economies, particularly India, where empirical research on ethical AI use remains limited.

6.7. Practical Implications

The findings of this study have important implications for higher education institutions, educators, and policymakers.

For Educational Institutions

Universities should develop comprehensive AI governance frameworks that clearly define acceptable and unacceptable AI practices. Institutions should also integrate AI ethics into curricula and promote responsible AI use through workshops and awareness campaigns.

For Educators

Faculty members play a crucial role in shaping students' ethical behaviors. Educators should provide clear guidance on AI usage, encourage critical

thinking, and design assessments that promote authentic learning.

For Policymakers

Policymakers should establish standardized guidelines for ethical AI use in education while ensuring that regulations remain flexible enough to accommodate technological advancements.

For Students

Students should be encouraged to view AI as a learning aid rather than a replacement for intellectual effort. Ethical AI use should be promoted as an essential aspect of academic and professional development.

VII. CONCLUSION

Artificial intelligence has transformed higher education by providing innovative tools that support learning, improve accessibility, and enhance academic experiences. However, the rapid integration of AI technologies has also introduced significant ethical challenges related to academic integrity, responsible use, and educational fairness.

The present study examined the determinants of ethical intentions toward AI use among undergraduate students in Bengaluru, India. Drawing upon the Theory of Planned Behavior and ethical decision-making perspectives, the study investigated the roles of Academic Integrity Values, Moral Reasoning, AI Literacy, Social Influence, and Perceived Learning Benefit in shaping Ethical Intention.

The findings reveal that all five constructs significantly and positively influence ethical intention toward AI use. Among these factors, Academic Integrity Values emerged as the strongest predictor, emphasizing the enduring importance of ethical principles in the digital era. The results further highlight that responsible AI use is shaped not only by technological understanding but also by ethical awareness, social contexts, and perceptions of educational value.

The study contributes to the growing literature on AI ethics by offering an integrated framework for understanding students' ethical AI behaviors. The findings provide valuable implications for educators, institutions, and policymakers seeking to promote responsible AI adoption in higher education.

Ultimately, AI should be viewed not as a replacement for human learning but as a supportive tool that enhances educational experiences when used ethically and responsibly. By fostering integrity, AI literacy, and ethical awareness, higher education institutions can harness the benefits of AI while preserving the fundamental values of education.

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