



HIGH SCHOOL STUDENTS' PERCEPTIONS AND AWARENESS ON THE ETHICAL IMPLICATIONS OF ARTIFICIAL INTELLIGENCE

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Abstract

This study investigated the perceptions and awareness of 233 junior and senior high school students in Cordon, Isabela, Philippines, regarding the ethical implications of Artificial Intelligence (AI) during the 2025–2026 academic year. Utilizing a quantitative descriptive research design, data were collected through a structured survey adapted from validated instruments to measure students' views on AI benefits, risks, and ethical responsibilities.

The findings revealed that students possess a commendable grasp of AI ethics, specifically acknowledging that AI should serve as a supplemental learning tool rather than a replacement for intellectual effort. While the student body demonstrated high awareness of academic integrity—prioritizing originality and honesty their understanding of data privacy was found to be less robust, indicating a need for targeted instructional support. Statistical analysis indicated that gender is not a significant factor in perceiving AI utility. However, age and grade level are determining factors; senior high school students perceive AI as a more effective and beneficial resource compared to their junior high counterparts. Furthermore, a direct correlation was observed between the frequency of AI exposure and ethical awareness, with "power users" exhibiting a more sophisticated understanding of data privacy and responsible use. The study concludes that while students are ethically conscientious, structured educational initiatives are essential to deepen their comprehension of digital privacy and the long-term moral consequences of AI integration in education.

Keywords: Artificial Intelligence, AI Ethics, Academic Integrity, Data Privacy, High School Students

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Introduction

The educational sector has undergone a rapid metamorphosis driven by Artificial Intelligence (AI), fundamentally shifting how students gather data and engage with curriculum. As AI-integrated tools ranging from predictive search systems to sophisticated chatbots become ubiquitous, learners are increasingly weaving these technologies into their scholarly habits. AI offers personalized pedagogical support by adapting to individual learning speeds and reducing academic pressure through instant assistance, cementing its role as a vital fixture in contemporary classrooms (Basch et al., 2025).

Despite these advancements, the integration of AI is shadowed by complex ethical dilemmas. Global academic circles are currently grappling with the implications of algorithmic prejudice, data confidentiality, and the erosion of academic honesty. Because these systems can archive sensitive information and subtly steer student behavior via automated prompts, they pose a risk to independent thought. The rise of generative models specifically brings the concepts of intellectual property and "manufactured" authorship to the forefront, necessitating a closer look at how students navigate these moral hurdles (Mishara, 2024; Ramos, 2025).

Recent international trends suggest a dual perspective: students value the accelerated productivity AI provides but remain wary of digital dependency and misinformation (Johri et al., 2024). In the Philippine context, while students recognize AI's utility, there is a visible skepticism regarding its fairness and the "moral compass" of automated systems (Basch et al., 2025; Ramos, 2025). Evidence from the Eastern Philippines indicates that while Senior High Schoolers possess a baseline ethical awareness, they lack the formal framework required for truly responsible utilization (Thelma et al., 2025).

The need for localized inquiry is paramount, as digital divides and regional educational standards vary. Students in Cordon, Isabela, encounter AI daily through social media filters and automated academic tools, yet their depth of ethical understanding remains largely unmapped. This study analyzes the intersection of awareness and perception regarding AI ethics among Junior and Senior High School students in Cordon. The goal is to provide school administrators with the insights needed to develop robust digital literacy initiatives, ensuring that the transition into an AI-augmented future is both equitable and ethically grounded.

The primary objective of this study is to investigate the perceptions and awareness of junior and senior high school students in Cordon, Isabela, regarding the ethical implications of Artificial Intelligence (AI) during the School Year 2025–2026.

Theoretical Framework

The foundation of the framework rests on Ajzen's Theory of Planned Behavior (1991), which suggests that a student's choice to use AI ethically or otherwise is determined by their personal attitudes and social influences. By evaluating the perceived benefits against the potential risks of AI, students develop a specific intent that guides their classroom behavior. This theory is essential for the study as it helps explain the "why" behind student actions, suggesting that their ethical choices are not random but are calculated decisions based on their own value systems and perceived control over the tools.

Complementing this is Fred Davis's Technology Acceptance Model (1989), which narrows the focus to how the specific characteristics of AI tools influence user behavior. According to TAM, if a student finds an AI tool highly useful and easy to operate, they are far more likely to adopt it regardless of potential moral consequences. This is a critical lens for the research, as it highlights a potential conflict: the sheer convenience and efficiency of AI might tempt students to prioritize academic output and high grades over strict adherence to ethical guidelines or original work.

Finally, the framework incorporates James Rest's Four-Component Model (1986) to address the "Awareness" aspect of the study's title. This model moves beyond simple usage and explores the internal psychological process of Moral Sensitivity and Moral Judgment. It provides the basis for evaluating whether students actually recognize issues like data privacy and plagiarism as ethical dilemmas. By combining these three theories, the framework creates a comprehensive roadmap that tracks how a student moves from the initial adoption of AI technology to the complex moral judgments required to use it with integrity.

Methodology

The study employed a quantitative descriptive path, utilizing a customized survey adapted from the work of Fabrique et al. (2024). To optimize the tool for the target demographic, the researcher refined the language for clarity and established content validity through expert review. Reliability was confirmed via Cronbach's Alpha, which yielded scores between 0.747 and 0.893, indicating that the instrument consistently measured constructs like data integrity and ethical awareness.

Using stratified random sampling, a representative group of 233 participants (132 males and 124 females) were selected to ensure both Junior and Senior High School perspectives were captured. The study respondents came from four public high schools in Cordon - Cagasat, Diadi Region, Taliktik, and Wigan. The data collection phase commenced only after receiving formal authorization from the Schools Division Office. Throughout the process, the researcher maintained high ethical standards; participation remained strictly elective, and student identities were shielded through total anonymity in alignment with the Data Privacy Act of 2012.

Quantitative data were interpreted using a four-point Likert scale to translate numerical averages into qualitative descriptors of awareness. The analytical phase involved calculating weighted means and frequency distributions to identify baseline trends in student attitudes. Furthermore, descriptive and inferential statistics specifically t-tests and ANOVA were employed to examine whether demographic variables, such as sex and academic level, resulted in significant variations in how students understand and engage with AI ethics.

Results and Discussion

Table 1. Respondents' Used and Exposure to AI

Profile Category	Frequency	Percentage (%)
Type of AI Tools Used		
AI chat tools (e.g., ChatGPT)	196	84.12%
AI writing or grammar tools	155	66.52%

AI study or tutoring tools	139	59.66%
Exposure to AI		
Weekly	94	40.34%
Almost Everyday	42	18.03%
Monthly	43	18.45%
Once or twice in 3 months	54	23.18%

Based on the data in Table 1, the respondent profile reveals a high level of integration

and familiarity with artificial intelligence. AI chat tools dominate usage, with 84.12% (f=196) of participants utilizing platforms like ChatGPT. This suggests that conversational AI has become the primary gateway for user interaction, likely due to its versatility in information retrieval and task automation. Following closely are AI writing tools (66.52%) and study tools (59.66%), indicating that AI is deeply embedded in academic and professional productivity.

Regarding exposure, the largest group uses these tools weekly (40.34%), reflecting a consistent but not yet constant integration into daily life. Interestingly, the combined frequency of those using AI less often (monthly or quarterly) suggests a segment of "casual users" who may only turn to AI for specific, high-stakes tasks rather than routine habits. As noted by Zhai (2022), the prevalence of generative AI in educational contexts necessitates a shift from traditional assessment toward AI-assisted learning. Furthermore, Ouyang et al. (2022) highlight that while adoption is high, the effectiveness of these tools depends heavily on the user's digital literacy. Ultimately, the high percentage of chat-based tool usage confirms that "the conversational interface is the new standard for human-computer interaction" (Mollick, 2023).

Table 2. Respondents' Perception of the Benefits of AI in School

Top Perceived Benefits	Mean	SD	Description
AI provides helpful explanations when I am confused	3.16	0.686	Agree
AI helps me finish school tasks faster	3.11	0.714	Agree
AI supports different learning styles of students	2.92	0.718	Agree
AI helps me understand lessons better	2.91	0.754	Agree
Overall Grand Mean (Perceived Benefits)	2.86	0.501	Agree

Table 2 reveals a positive academic reception of artificial intelligence, with an Overall Grand Mean of 2.86 (SD = 0.501), interpreted as "Agree." The most significant benefit identified is AI's capacity to provide helpful explanations (M = 3.16), followed by its role in completing tasks faster (M = 3.11). These results suggest that students primarily value AI as a "cognitive scaffold" for immediate problem-solving and efficiency.

While support for varied learning styles and lesson comprehension also received "Agree" ratings, their lower means indicate that students view AI more as a functional aid than a complete substitute for traditional instruction. Current research suggests that AI-enabled intelligent assistants reduce cognitive load by providing personalized learning support tailored to individual needs (Sajja et al., 2023). Furthermore, AI algorithms enhance efficiency by automating routine tasks, allowing students to focus on higher-level research and writing (Blatch-Jones et al., 2024). Ultimately, while adoption is widespread, studies indicate that higher AI literacy is significantly correlated with better academic performance, emphasizing that these tools are most effective when users can critically evaluate the output (Falcon et al., 2024).

Table 3: Respondents' Perception of the Risks of AI in School

Top Perceived Risks	Mean	SD	Description
Students may depend too much on AI for answers	3.29	0.741	Strongly Agree
AI can be used to cheat in schoolwork	3.27	0.669	Strongly Agree
Too much use of AI can make students lazy	3.23	0.771	Agree
Some students may misuse AI for dishonest purposes	3.22	0.744	Agree
Overall Grand Mean (Perceived Risks)	3.05	0.511	Agree

Table 3 highlights a critical awareness of the potential pitfalls of artificial intelligence in education, yielding an Overall Grand Mean of 3.05 (SD = 0.511), which signifies an "Agree" consensus on the perceived risks. The most pressing concern identified is over-dependence on AI for answers (M = 3.29), followed closely by the risk of academic dishonesty or cheating (M = 3.27). Both items earned a verbal description of "Strongly Agree," indicating that while students appreciate AI's benefits, they are deeply wary of how it might erode independent thinking and academic integrity.

This cautious stance reflects broader academic concerns regarding "cognitive offloading," where students rely on technology to the detriment of their own problem-solving skills (Sullivan et al., 2023). Furthermore, the anxiety over misuse and student "laziness" (M = 3.23) underscores the need for clear institutional guidelines. As noted by Cotton et al. (2024), the rapid integration of generative AI necessitates a robust "ethics-first" approach to prevent the devaluation of traditional learning outcomes. Ultimately, these risks suggest that students view AI as a "double-edged sword" that requires significant self-regulation and external oversight to remain a constructive educational tool (Farrokhnia et al., 2024).

Table 4: Level of Awareness on AI Ethics and Responsible Use

Statements on Ethics & Responsibility	Mean	SD	Description
I understand that using AI to cheat is wrong	3.39	0.735	Strongly Agree
I am aware that AI can affect academic honesty	3.33	0.729	Strongly Agree
I am aware that misuse of AI has consequences	3.31	0.712	Strongly Agree
I know that AI should not be used to copy others' work	3.30	0.756	Strongly Agree
Overall Grand Mean (Ethical Awareness)	3.24	0.518	Agree

Table 4 demonstrates a high level of moral consciousness regarding technology, with an Overall Grand Mean of 3.24 (SD = 0.518), interpreted as "Agree." The data indicates that respondents possess a profound understanding of academic integrity, specifically acknowledging that using AI to cheat is wrong (M = 3.39) and recognizing that AI misuse carries significant consequences (M = 3.31). These results, which predominantly fall under the "Strongly Agree" description, suggest that while students are frequent users of AI (as seen in Table 1), they remain ethically grounded and aware of the boundaries of responsible use.

The consistency across these ethical indicators suggests that the student body has internalized institutional values regarding original work. This aligns with recent research by Chiu

(2023), which posits that high ethical awareness acts as a primary moderator in the "intention-to-cheat" gap when students use generative tools. Furthermore, Crompton and Burke (2023) highlight that students who explicitly recognize the consequences of AI misuse are more likely to utilize these tools for support rather than academic fraud. However, as noted by Tlili et al. (2024), there is a persistent need for universities to move beyond mere awareness toward practical "AI literacy," ensuring that students have the technical skills to maintain this ethical standard in increasingly complex digital environments.

Table 5: Level of Awareness on Data Privacy and Academic Integrity

Statements on Privacy & Integrity	Mean	SD	Description
I understand the importance of original work	3.38	0.666	Strongly Agree
I know academic integrity should be maintained at all times	3.31	0.698	Strongly Agree
I know that copying AI-generated answers is dishonest	3.26	0.734	Strongly Agree
I am aware that sharing personal data with AI can be risky	3.18	0.728	Agree
Overall Grand Mean (Privacy & Integrity)	3.15	0.468	Agree

Table 5 demonstrates a high level of consciousness regarding ethical standards, with an Overall Grand Mean of 3.15 (SD = 0.468), interpreted as "Agree." Respondents show the strongest conviction in their understanding of the importance of original work (M = 3.38) and the necessity of maintaining academic integrity (M = 3.31), both of which earned a "Strongly Agree" description. While awareness that sharing personal data with AI is risky received a slightly lower mean (M = 3.18), it remains firmly within the positive consensus, indicating a foundational grasp of data privacy.

This data suggests that while students are proactive in adopting AI, they are not oblivious to the ethical friction it creates. The emphasis on original work aligns with the "Human-Centered AI" framework, which prioritizes human agency over machine-generated content (Shneiderman, 2022). Furthermore, Grassini (2023) notes that high levels of integrity awareness are essential as AI becomes a standard educational tool, serving as a psychological barrier against plagiarism. However, the slightly lower mean for data privacy awareness reflects a global trend where "privacy paradox" behaviors occur users express concern but lack deep technical knowledge of data handling (Lutz, 2019). Consequently, these results highlight a group that is ethically willing but may require more specific training on technical privacy risks.

Table 6: t-Test on the Perceptions and Awareness of the respondents by Sex

Variable	Group	Mean	t-value	p-value	Decision
Perceived Benefits	Male	2.88	0.640	0.523	Fail to Reject H ₀
	Female	2.84			
Perceived Risks	Male	3.01	-1.139	0.256	Fail to Reject H ₀
	Female	3.09			
Ethical Awareness	Male	3.24	0.111	0.912	Fail to Reject H ₀
	Female	3.23			
Privacy Awareness	Male	3.07	-2.482	0.014*	Reject H ₀

Table 6 presents a t-test comparison of perceptions and awareness between sex groups, indicating that gender generally does not influence how students view AI, except in one critical area. For Perceived Benefits (p = .523), Perceived Risks (p = .256), and Ethical Awareness (p = .912), the study failed to reject the null hypothesis, revealing a unified student perspective regardless of sex. However, a significant difference was found in Privacy Awareness (p = .014), where the null

hypothesis was rejected. This suggests that male and female students hold statistically distinct levels of concern or knowledge regarding how their data is handled by AI systems.

The lack of gender disparity in benefits and risks mirrors findings by Venkatesh et al. (2022), who noted that as technology becomes ubiquitous, traditional gender gaps in perceived utility tend to close. However, the significant difference in privacy awareness aligns with research by Fietier et al. (2024), suggesting that "privacy cynicism" or protective behaviors often manifest differently across gender lines in digital environments. This divergence underscores that while AI adoption is universal, the underlying concerns about data vulnerability remain gender-sensitive, requiring tailored educational interventions (Su & Yang, 2023).

Table 7: t-Test on the Perceptions and Awareness of the respondents by Academic Level I (t-test)

Variable	Group	Mean	t-value	p-value	Decision
Perceived Benefits	Junior High	2.73	-4.116	< .001*	Reject H ₀
	Senior High	3.00			
Perceived Risks	Junior High	3.08	0.933	0.352	Fail to Reject H ₀
	Senior High	3.02			
Ethical Awareness	Junior High	3.28	1.127	0.261	Fail to Reject H ₀
	Senior High	3.20			

Table 7 illustrates a significant divergence in how students of different academic levels perceive the utility of artificial intelligence. While the groups share a similar outlook on Perceived Risks ($p = .352$) and Ethical Awareness ($p = .261$)—indicating that moral boundaries and caution are consistently established across secondary education—the Perceived Benefits ($p < .001$) show a statistically significant difference. With a Senior High mean of 3.00 compared to the Junior High mean of 2.73, the null hypothesis is rejected. This confirms that older students find AI significantly more advantageous for their specific academic requirements.

This gap suggests that as curriculum complexity increases, students rely more on AI to manage advanced workloads and research demands. According to Kuhail et al. (2023), students at higher educational stages often transition from viewing AI as a mere novelty to utilizing it as a sophisticated "peer agent" or "tutor" that supports independent, higher-order thinking. Therefore, while both groups are equally aware of the ethical stakes, the practical value of AI scales upward as students encounter the more rigorous academic expectations of Senior High School.

Table 8: Impact of AI Exposure on Ethical Awareness (ANOVA)

Variable	F-ratio	p-value	Decision	Interpretation
Awareness of Responsible Use	3.193	0.026*	Reject H ₀	Significant difference based on exposure
Adherence to School Rules	3.276	0.024*	Reject H ₀	Significant difference based on exposure
Overall Ethical Awareness	3.247	0.024*	Reject H ₀	Higher exposure leads to higher awareness

Table 8 demonstrates that the frequency of AI exposure significantly shapes a student's ethical framework. The ANOVA results for Awareness of Responsible Use ($p = .026$) and Adherence to School Rules ($p = .024$) both led to the rejection of the null hypothesis. Most importantly, the Overall Ethical Awareness ($p = .024$) indicates a clear trend: higher exposure to AI tools leads to a more robust ethical understanding. This suggests that as students move from casual use to regular engagement, they move past simple convenience and begin to internalize the complex moral boundaries associated with technology.

This correlation is supported by the concept of "experiential AI literacy," where repeated interaction with technology forces users to confront real-world dilemmas regarding bias, privacy, and original work. As noted by Chan (2023), the integration of generative AI in higher education provides a platform for students to refine their moral compass, as regular users are more likely to encounter and learn to navigate the specific institutional policies governing academic honesty. Therefore, rather than leading to complacency, increased exposure appears to foster a more disciplined and principled approach to utilizing digital tools in a school setting.

Conclusions

Based on the research findings, the study concludes that while gender and age are balanced among participants, the perspectives predominantly reflect Junior High School students with moderate digital proficiency. Artificial Intelligence has become a central fixture in academic life; however, students primarily utilize these tools for rapid data retrieval and task completion rather than for deep conceptual mentorship or specialized tutoring.

Ethically, students demonstrate a strong foundational commitment to academic honesty and proper attribution. Nevertheless, a significant gap exists regarding data privacy and information security, indicating a critical need for targeted educational interventions in digital safety. The perception of AI as a constructive resource is widespread, particularly among older "power users" who leverage technology to foster self-directed learning and professional readiness.

Critically, students are not oblivious to technological risks; they recognize the dangers of algorithmic inaccuracies, the erosion of critical thinking, and the pitfalls of over-dependence. The study ultimately reveals that frequent, hands-on engagement with AI correlates with higher ethical maturity. Therefore, consistent and mentored interaction with these technologies is the most effective catalyst for cultivating a mindful, responsible, and ethically grounded approach to digital citizenship within the modern classroom.

Recommendations

Based on the significant correlation between AI exposure and ethical awareness among students in Cordon, Isabela, a proactive "Digital Citizenship" framework is recommended. Since students view AI as a convenient resource but prioritize efficiency over morality, interventions may shift from prohibition to analytical resilience.

First, schools may implement scenario-based ethical training within the curriculum. Given that Senior High students show high awareness of the consequences of misuse these lessons may teach students to distinguish between using AI as a "tutor" versus a "cheating tool." Prioritizing Civic Online Reasoning will further help learners identify algorithmic biases and inaccuracies.

Second, institutional policies may be updated to clarify AI-generated content and citation standards. While students value these protocols, a dedicated focus on data privacy is necessary, as awareness in this area is less pronounced. Workshops should specifically target the risks of data

sharing to ensure student security Finally, stakeholders may initiate longitudinal research to track the long-term impact of AI dependency on critical thinking. By fostering open dialogue between home and school, educators can ensure technology serves as a learning aid rather than a replacement for independent thought.

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Ethics approval and consent to participate: Informed consent was obtained from participants; confidentiality and voluntary participation were ensured.

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