

# Navigating AI Ethics: Integrating Character Education and Academic Integrity in Student Learning

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## ABSTRACT

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The rapid development of generative artificial intelligence (AI) in education has created new challenges related to academic integrity, declining reading interest, and excessive dependence on instant digital solutions among students. These issues were observed among students of SMK Nurul Abror Al Robbaniyin, where the ease of accessing AI-generated content often reduced students' motivation to engage with academic literature and critical learning processes. This community service program aimed to strengthen students' ethical awareness in utilizing AI technologies by integrating character education with digital literacy. The program was implemented using a service learning approach combined with participatory action research through a series of workshops, ethical discussions, and guided learning activities focusing on responsible AI usage and critical reading practices. The results of the program indicated a significant improvement in students' understanding of academic integrity principles, increased awareness of ethical AI usage, and renewed engagement with library resources as part of hybrid research practices. Students demonstrated better ability to differentiate between ethical AI assistance and academic dishonesty while maintaining responsible learning behavior. This initiative contributes to strengthening ethical digital literacy and provides a practical model for integrating character education with AI literacy to support sustainable learning and responsible technology use in vocational education environments.

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## INTRODUCTION

The rapid proliferation of Generative Artificial Intelligence (AI) has fundamentally reshaped the landscape of contemporary education, introducing unprecedented levels of efficiency in information retrieval, knowledge production, and automated problem-solving. While these technologies offer substantial pedagogical potential, they simultaneously generate profound

epistemological tensions between technological convenience and the foundational objectives of education, namely deep learning, critical inquiry, and reflective reasoning. In many learning environments, the instant availability of AI-generated answers has begun to displace traditional scholarly engagement, leading to concerns about the erosion of academic integrity and the weakening of students' analytical capabilities. Recent studies emphasize that the integration of generative AI in education must be accompanied by ethical frameworks that guide responsible usage, ensuring that technological tools enhance rather than undermine intellectual development (Carbajal-Pina & Acur, 2024; Zhanbayev et al., 2023). Consequently, the discourse on generative AI ethics has emerged as a critical domain in educational research, particularly in institutions responsible for shaping future professional competencies.

Within this evolving educational landscape, SMK Nurul Abror Al Robbaniyin represents a vocational institution that aspires to cultivate vocational excellence while simultaneously preserving strong foundations in religious values and character formation. As a faith-oriented vocational school, the institution seeks to integrate technical competencies with ethical awareness, ensuring that students are not only equipped with practical skills but also guided by moral principles rooted in Islamic character education. This dual orientation reflects the broader educational philosophy of many Indonesian vocational institutions that attempt to harmonize professional readiness with value-based education (Syafika & Marwa, 2024). However, as digital technologies become increasingly embedded in learning processes, maintaining this balance between technological advancement and character-based pedagogy presents new challenges that require systematic academic intervention.

One of the most pressing challenges currently observed within the student learning environment is the growing dependence on generative AI tools for instant academic solutions. Instead of engaging with textbooks, scholarly literature, or reflective discussion, many students increasingly rely on AI-generated outputs to complete assignments rapidly. While such tools provide immediate access to synthesized information, their uncritical use significantly diminishes students' motivation to read, analyze, and interpret academic sources independently. This phenomenon contributes to what scholars increasingly describe as a "literacy crisis" in the digital learning era, where students demonstrate declining reading endurance and reduced engagement with extended texts (Syafika & Marwa, 2024; Zhanbayev et al., 2023). In vocational education contexts, where applied knowledge should be grounded in conceptual understanding, this pattern of dependency risks weakening the intellectual foundations necessary for long-term professional competence.

Despite the rapid integration of AI technologies in educational environments, a significant institutional gap persists between technological adoption and the development of comprehensive ethical frameworks governing AI use. Many vocational schools have embraced digital tools to enhance efficiency and productivity; however, structured guidelines addressing generative AI ethics, academic honesty, and responsible digital scholarship remain underdeveloped. This disparity creates a learning environment where students are exposed to powerful technological resources without adequate ethical orientation or critical literacy training. Scholars argue that without clear ethical guidelines, AI technologies may inadvertently normalize forms of digital plagiarism and academic misconduct, thereby undermining the credibility of educational institutions (Nwozor, 2025; Ogwueleka, 2025). Addressing this gap requires a deliberate educational strategy that integrates technological literacy with ethical reflection and value-based learning.

Furthermore, the challenges associated with AI dependency cannot be separated from broader socio-economic and institutional dynamics shaping student behavior in the digital age. Vocational education is often characterized by intensive competency-based curricula that emphasize productivity, efficiency, and immediate results. Within such environments, students may experience strong pressure to complete assignments quickly while simultaneously navigating the broader digital culture that privileges speed over depth. This “instant culture” reinforces the temptation to utilize AI-generated shortcuts rather than engage in sustained intellectual effort. Research indicates that such patterns may gradually weaken students’ cognitive resilience, reducing their ability to conduct independent analysis and critical evaluation (Nakhostin-Khayyat et al., 2024; Namaziandost et al., 2023). Consequently, without intentional educational interventions, the widespread use of AI tools may inadvertently compromise the long-term intellectual growth of vocational students.

Recent scholarly literature increasingly highlights the importance of combining AI literacy with character-based pedagogy to mitigate the risks associated with digital plagiarism and technological dependency. Educational researchers argue that ethical awareness, reflective thinking, and moral reasoning must accompany the adoption of advanced educational technologies in order to safeguard academic integrity. Studies conducted across various educational contexts demonstrate that integrating character education into digital literacy programs can significantly strengthen students’ ethical decision-making and reduce tendencies toward academic dishonesty (Budiyono et al., 2024; Mahbubi, 2024; Mishra & Varshney, 2024). These findings reinforce the argument that technological competence alone is insufficient; instead, a holistic

educational approach that integrates ethical reflection and character formation is essential for navigating the complexities of AI-assisted learning.

In response to these emerging challenges, this community service initiative aims to integrate character education with AI literacy training within the learning environment of SMK Nurul Abror Al Robbaniyin. The primary objective is to cultivate students' capacity to utilize generative AI technologies responsibly while maintaining strong commitments to academic integrity, critical reading habits, and ethical scholarship. By embedding ethical reflection into AI-based learning practices, the program seeks to foster a generation of vocational students who are not only technologically proficient but also guided by moral responsibility and intellectual discipline. Through this approach, the initiative aspires to contribute to the development of a balanced educational paradigm in which technological innovation supports, rather than undermines, the cultivation of ethical awareness, literacy development, and vocational excellence.

## **METHOD OF IMPLEMENTATION**

The implementation of this community service program adopted a Service Learning approach integrated with Participatory Action Research (PAR) as a comprehensive pedagogical intervention aimed at strengthening ethical awareness in the use of artificial intelligence within vocational education. This framework positions students not merely as passive recipients of knowledge but as active participants who collaboratively examine real educational challenges emerging from the rapid diffusion of generative AI technologies. The program was conducted at SMK Nurul Abror Al Robbaniyin, involving vocational students from various academic majors as the primary partners in the empowerment process. Through the strategy of "Empowerment through Ethical Literacy," the intervention encouraged students and teachers to critically reflect on the implications of excessive AI dependency while reinforcing the importance of academic integrity, responsible technology use, and sustained engagement with academic literature. Within this participatory framework, students were guided to identify the ethical dilemmas associated with AI-generated content, analyze the risks of academic misconduct, and develop reflective strategies that support responsible digital scholarship. This approach aligns with contemporary digital literacy frameworks, which emphasize the integration of technological competence, ethical reasoning, and critical thinking in preparing students for responsible participation in the knowledge society.

The implementation process was conducted through three systematic stages: preparation, implementation, and evaluation, ensuring that the intervention was both structured and measurable. During the preparation stage,

the research team conducted a baseline assessment to map students' habits in utilizing generative AI tools for academic tasks and to identify the level of awareness regarding academic integrity principles. Based on this assessment, a structured training module titled "AI Ethics and Critical Reading" was developed, integrating ethical guidelines, digital literacy concepts, and strategies for responsible AI usage. The implementation stage consisted of a series of interactive workshops designed to stimulate reflective learning, including sessions on "Prompt Engineering versus Critical Thinking," discussions on ethical AI utilization, and the socialization of academic integrity protocols within the school environment. These activities were supported by digital resources such as curated reading platforms, ethical handbooks, and demonstration sessions on evaluating AI-generated outputs. In the evaluation stage, a holistic evaluation framework was applied through pre- and post-tests measuring students' ethical AI literacy, alongside the utilization of AI-detection tools such as GPTZero and Turnitin to examine the authenticity of student submissions. The program also monitored behavioral indicators, including changes in citation practices and students' engagement with academic reading materials. The success of the intervention was determined by measurable improvements in ethical AI literacy scores, a decline in non-cited AI-generated assignments, and a renewed interest among students in utilizing library and scholarly resources for academic synthesis, thereby reinforcing a sustainable culture of responsible digital scholarship.

**Table 1. Roadmap of the AI Ethics Empowerment Program**

<b>Implementation Phase</b>	<b>Strategic Activity</b>	<b>Achievement Indicator</b>
Preparation	Baseline assessment of AI usage habits and development of the "AI Ethics and Critical Reading" training module	Availability of diagnostic data on AI usage patterns and validated training materials
Implementation	Interactive workshops, ethical AI literacy sessions, "Prompt Engineering vs. Critical Thinking" discussions, and academic integrity socialization	Active student participation and improved understanding of responsible AI utilization
Evaluation	Pre- and post-test assessment, monitoring using AI-detection tools (GPTZero and Turnitin), and analysis of citation practices	Increased ethical AI literacy scores, reduced non-cited AI-generated submissions, and higher engagement with academic reading resources

## RESULT AND DISCUSSION

The baseline assessment conducted at SMK Nurul Abror Al Robbaniyin revealed a concerning pattern regarding students' academic behavior in the

digital learning environment. Initial diagnostic observations indicated a high frequency of assignments that relied heavily on AI-generated responses without adequate citation or critical evaluation, suggesting a growing trend of AI-assisted plagiarism. In parallel, school records and teacher interviews showed a significant decline in students' engagement with library resources, with many learners preferring instant digital answers over traditional academic reading. This phenomenon reflects what scholars describe as the "instant-gratification culture" within digital learning ecosystems, where speed and convenience overshadow reflective inquiry and deep literacy practices (Hou, 2025; Smeplass, 2023). In vocational education contexts, such patterns are particularly problematic because the acquisition of professional competence requires conceptual understanding, analytical reasoning, and ethical responsibility. Without appropriate guidance, excessive reliance on generative AI risks weakening students' intellectual discipline and undermining academic integrity as a foundational value in educational practice.

To address this challenge, the project implemented an intensive pedagogical intervention titled "Ethical AI & Critical Reading Workshop." The workshop was designed to reposition artificial intelligence not as a replacement for intellectual effort but as a supportive brainstorming partner within a structured learning process. Students were guided to utilize AI tools to generate ideas, outline concepts, and identify relevant academic keywords, while simultaneously learning how to critically evaluate the credibility and originality of AI outputs. Through interactive sessions involving case studies, ethical discussions, and guided practice, students explored the difference between responsible AI assistance and academic misconduct. This instructional design aligns with recent scholarship emphasizing that AI literacy must be integrated with ethical awareness and metacognitive learning strategies in order to prevent technological misuse in academic contexts (Biagini, 2025; LaFlamme, 2025). As a result, the workshop transformed students' perception of AI from a shortcut mechanism into a cognitive tool that complements critical thinking and academic responsibility.

Following the intervention, measurable improvements were observed in students' ability to differentiate between ethical AI usage and forms of academic dishonesty. Through reflective exercises and supervised assignments, students demonstrated greater awareness of citation practices, source validation, and the importance of integrating AI-generated insights with scholarly references. Moreover, teachers reported a notable increase in students' willingness to discuss ethical considerations when using digital technologies for academic tasks. These developments were quantified through a comparative analysis of baseline and post-intervention assessments. As demonstrated in Table 1, the training program

significantly improved students' ethical AI literacy and strengthened their understanding of academic integrity principles within the learning process.

**Table 2. Improvement in AI Ethical Literacy and Academic Integrity Awareness among Students**

Assessment Criteria	Baseline Score	Post-Intervention Score	Change
Understanding of Ethical AI Usage	52	81	+55.8%
Awareness of Academic Integrity Principles	48	79	+64.6%
Ability to Identify AI-Assisted Plagiarism	46	77	+67.4%
Proper Citation of AI-Assisted Content	50	82	+64.0%
Critical Evaluation of AI Outputs	54	83	+53.7%

The data presented in Table 2 indicate a substantial improvement across all assessment indicators following the implementation of the training program. The most significant progress was observed in students' ability to identify AI-assisted plagiarism and apply appropriate citation practices. These findings demonstrate that structured educational interventions focusing on ethical digital literacy can effectively strengthen students' awareness of academic responsibility and promote more reflective engagement with technological tools.

One of the most notable behavioral transformations observed during the program was the emergence of a "Hybrid Research" learning approach among students. Rather than relying solely on AI-generated answers, students began to use generative AI tools primarily to identify keywords, conceptual frameworks, and potential research directions. These outputs were then validated and expanded through consultation with printed textbooks, scholarly articles, and library materials. This hybrid model encouraged students to treat AI as a preliminary research assistant rather than a final knowledge source. As a result, teachers reported renewed student interest in exploring the school library, with many learners demonstrating greater curiosity in comparing AI-generated information with established academic references. This shift supports previous findings that combining digital literacy with traditional reading practices can significantly strengthen students' analytical abilities and knowledge retention (Alneyadi et al., 2023; Chang et al., 2023).

The transformation of students' study behavior became particularly visible during supervised learning sessions in the school library, where learners actively cross-referenced AI-generated outputs with printed academic resources. As illustrated in Figure 1, this learning environment demonstrated how digital tools and traditional literacy practices can coexist within a balanced educational framework.



**Figure 1. Students Engaged in Cross-Referencing AI Outputs with Library Textbooks.**

Beyond individual behavioral changes, the intervention also stimulated institutional transformation within the school environment. Through collaborative discussions involving teachers, school administrators, and students, the project facilitated the formulation of the “SMK Nurul Abror Academic Integrity Protocol.” This guideline established a clear framework for responsible AI usage in academic assignments, including requirements for transparent citation of AI assistance, verification of information using credible sources, and ethical reflection on digital scholarship. The protocol was subsequently introduced through classroom socialization sessions and visual educational materials placed in learning spaces. The development of this institutional framework marked a critical step toward ensuring that ethical AI practices are sustained beyond the duration of the community service program. The newly established guidelines are summarized visually in Figure 2.



**Figure 2. The Newly Established Ethical AI Usage Guidelines for Students**

The outcomes of this program reinforce the theoretical proposition that technological empowerment must be grounded in ethical awareness and character development. The observed improvements in students' academic integrity practices align with the concept of Digital Wisdom, which emphasizes the responsible and reflective use of technology as an extension of human intellectual capacity (Magliocca et al., 2025). Furthermore, the integration of character-based pedagogy within AI literacy training reflects contemporary educational theories highlighting that moral reasoning and ethical reflection are essential components of sustainable digital learning ecosystems (AlAfnan & Al, 2024; Fernández Espinosa & Domingo, 2025; Zuhri et al., 2026). By combining ethical education with practical AI literacy, the intervention successfully demonstrated that vocational students can develop both technological competence and moral responsibility. Such an approach is crucial for ensuring that emerging generations of learners are not merely technologically proficient but also equipped with the ethical foundations necessary to navigate the complex challenges of the AI-driven knowledge society.

## CONCLUSION

The implementation of the AI Ethics and Academic Integrity empowerment program at SMK Nurul Abror Al Robbaniyin demonstrates that integrating character education with digital literacy training can effectively address the emerging challenges associated with generative AI usage in student learning. The intervention successfully transformed students' perspectives from perceiving artificial intelligence as a convenient shortcut for completing assignments into recognizing it as a supportive intellectual tool that must be used

responsibly and ethically. Through structured workshops, reflective discussions, and guided research practices, students developed stronger awareness of academic integrity principles, improved their ability to evaluate AI-generated information critically, and demonstrated a renewed commitment to proper citation and scholarly honesty. Moreover, the program contributed to a revitalization of reading culture, as students increasingly combined AI-assisted exploration with traditional academic sources, including textbooks and library materials. These outcomes indicate that ethical AI literacy, when reinforced through character-based pedagogy, can cultivate intellectual rigor while preserving the moral foundations necessary for sustainable learning.

To ensure the sustainability of these achievements, the initiative emphasizes the institutionalization of ethical AI governance within the school's academic ecosystem. The establishment of the SMK Nurul Abror Academic Integrity Protocol serves as a foundational policy that guides students in navigating AI-assisted learning while maintaining transparency and scholarly responsibility. Moving forward, continuous monitoring of AI-assisted assignments, the integration of ethical digital literacy into classroom instruction, and periodic training for both teachers and students will strengthen the program's long-term impact. Such strategies reinforce pedagogical resilience, ensuring that technological advancement does not compromise educational values but instead strengthens students' intellectual discipline and moral compass. Furthermore, the model developed through this community service initiative offers a replicable framework for other vocational schools, demonstrating how the integration of ethical awareness, character education, and technological competence can produce graduates who are not only digitally skilled but also ethically responsible. In this way, the program contributes to the broader vision of character-based vocational excellence, where technological innovation is harmonized with strong ethical principles to prepare students for responsible participation in the evolving digital society.

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