AsTEN JOURNAL OF TEACHER EDUCATION
SPECIAL ISSUE, SEAMEO-RIHED | 2025

AI Chatbot Misuse in Education: Ethical and Pedagogical Risks

Irene C. Gumiran, Melvin N. Ambida
Faculty, College of Education, Rizal Technological University, Philippines

ABSTRACT

This research examines the abuses and violations associated with integrating AI chatbots into classrooms, educational institutions, and students' overall learning experience, potentially leading to ethical and pedagogical risks. Guided by the Social Construction of Technology (SCOT) framework, this qualitative single-case study at a state university in the Philippines used interviews, focus group discussions with 23 participants from various disciplines, and document analysis to understand the case's context. Findings suggest that while these tools can enhance learning, their misuse fosters academic dishonesty, overreliance, and diminished critical thinking. The study recommends advanced pedagogical strategies and comprehensive AI-use policies in education. It implies the need for ASEAN-wide collaboration, context-sensitive teacher training, and culturally grounded AI literacy frameworks. This research contributes to the national, regional, and global discourse on education, emphasizing the equitable and ethical integration of AI to ensure inclusive development across the Philippines, Southeast Asia, and beyond.

ARTICLE INFORMATION

Article History
Received: March 07, 2025
Revised: September 01, 2025
Accepted: September 09, 2025

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Gumiran, I., & Ambida, M. (2025). AI chatbot misuse in education: Ethical and pedagogical risks. *AsTEN Journal of Teacher Education – Special Issue, SEAMEO-RIHED.*

Corresponding Author: Irene C. Gumiran
icgumiran@rtu.edu.ph

Keywords: academic integrity, AI misuse, AI chatbots, SEAN AI framework, Social Construction of Technology

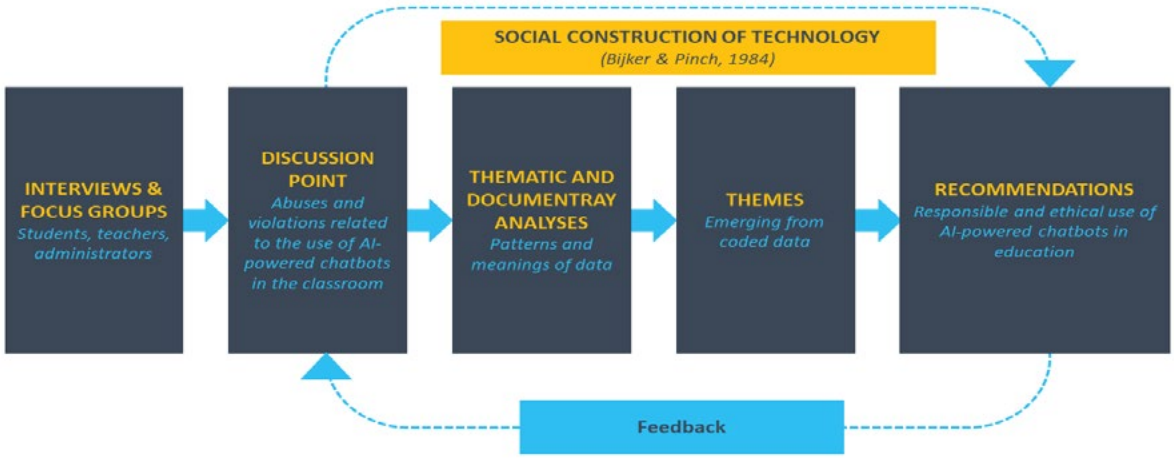
Introduction

The adoption of artificial intelligence (AI) in education is transforming learning spaces worldwide, and the AI market is projected to reach $6 billion by 2025 (Digital Education Council, 2024). Generative AI (GenAI) chatbots, including ChatGPT, Grammarly, and Microsoft Copilot, are being used more frequently. However, the overall integration of AI technologies presents issues regarding challenging ethical issues. Sustainable funding models (Hara, 2024), along with a supportive policy environment, are necessary to support AI systems that operate extensively. The focus of this study is to investigate the multifaceted problems related to AI-powered chatbots in educational spaces, fostering awareness and thoughtful conversations about ethical issues, and exploring practical solutions aimed at addressing these issues.

This study contributes a novel, grounded perspective by employing the Social Construction of Technology (SCOT) theory, popularized by Bijker and Law (1984), as cited in Basu (2022), to reveal how different institutional actors or stakeholder groups (students, teachers, administrators) co-construct the meaning, use, and ethical boundaries of AI-powered chatbots in their specific educational contexts. While ASEAN nations have begun integrating AI into education, a gap persists in understanding how contextual sociocultural interpretations shape AI ethics and governance in classrooms.

Figure 1

Framework of the Study



Literature Review

While ASEAN countries are exploring various ways to integrate AI into education, Singapore is leading the charge (Lee et al., 2023). The AI Ready ASEAN initiative aims to equip 5.5 million people with AI literacy by 2026 (Labanieh et al., 2024). The initiative offers support for the ASEAN Digital Masterplan 2025 and complements existing ethical governance frameworks.

Policies regulating AI involvement in education are needed to address issues of plagiarism in scientific articles, including frameworks similar to those in Singapore, the US, and Europe (Gede et al., 2024). Workshops and conferences hosted by the Asian Universities Alliance (AUA), in conjunction with leading ASEAN universities, are helping to provide avenues for arriving at a more formalized consensus on AI ethics governance, the importance of education, and facilitating cross-cultural and interdisciplinary dialogue. However, systemic digital divides remain (Apriliyanti et al., 2020; McFarlane et al., 2024). In addition, a report in 2024 determined that while Cambodia, Malaysia, Thailand, and the Philippines were implementing AI education with the user in mind, they were prioritizing demand-side policies (e.g., device distribution) instead of dealing with the supply-side infrastructure (e.g., rural connectivity), leading to inequitable access to AI (Hara, 2024; Khairul et al., 2024).

The AI Ready ASEAN initiative provides an example of a regional approach to task-sharing and using collaboration to benefit others regarding the "train-the-trainer" model for locally grounded AI literacy in education tasks. However, much work, research and understanding around potential bias with language learning technology and how it is used in educational contexts is still needed (Igartua et al., 2020; Lewis, 2025).

Over-reliance on chatbots diminishes the educational value and allows the potential for cultural bias in the ASEAN area of the world. Well-balanced innovations and culturally grounded supervision can be integrated into policy proposals as problem-solving solutions. For example, Vietnam's draft policy suggests EdTech tools used in education must operate under an AI transparency audit policy (McFarlane et al., 2024).

There are numerous helpful innovations provided by AI through chatbots in areas such as homework and study, personalized learning experiences, and skill development, which enable educators and education stakeholders to do much of the work. There has also been research focused on understanding the ethical implications and documenting abuses and violations as a consequence of integrating AI technologies into classrooms, educational institutions, and student learning experiences (Ali et al., 2024; Labadze et al., 2023).

Research Questions

Specifically, the researchers seek to answer the following research questions.

1. What are the types of abuses and violations associated with using AI-powered chatbots in the classroom?
2. How do the identified abuses and violations associated with the use of AI-powered chatbots impact the learning experience?
3. What recommendations can be made to mitigate the potential for abuses

and violations associated with the use of AI-powered chatbots?

Participants

Purposive sampling was used to recruit 23 participants who have direct experience with AI chatbot use from various disciplines at a state university for interviews and focus group discussion (FGD). This included students enrolled in undergraduate or graduate research-related courses, faculty members teaching research courses or serving on thesis/dissertation advisory committees, and administrators directly supervising curriculum and instructional delivery. Except for students, other participants were selected based on their current designation. Students were recruited from the engineering, business, arts, sciences, education, and graduate programs. Individuals who did not meet the criteria as shown in Table 1 were excluded from participation, such as staff or other personnel who did not fit into the specified student, faculty, or administrative categories.

Table 1

Study Participants

***Group*s**	***Composition***	***Samples***
Students	Undergraduate and graduate	9
Faculty members	Research professors/ instructors	6
Administrators	Associate deans, program heads, directors	8
Total		23

According to experts, a case study requires a minimum sample size of five to 50 (Garcia et al., 2024; Subedi, 2021) people to gain meaningful insights into the particular phenomenon being studied (Schoch, 2020).

Methodology

This study employed a single-case qualitative research approach to gather comprehensive information and contextualize the phenomenon (Creswell & Creswell, 2018). The researchers employed a qualitative approach to address primarily the data gathered via interviews and FGD, which lasted about 10-15 minutes and 30-45 minutes, respectively. Although interviews and FGD durations were concise, the study employed semi-structured and thematically aligned protocols that elicited targeted, experience-based insights. Participants were selected for their direct engagement with AI tools in educational contexts. Data collection continued until thematic saturation was reached.

Some interview and FGD guide questions included the following:

1. "How do the abuses and, in particular, violations concerning students affect trust in using AI chatbots for learning purposes?"
2. "In what ways do you think the misuse of AI chatbots impacts student engagement and motivation?"
3. "Can you provide examples of how these abuses and violations may impact the quality of learning?"

The study focused on a state university and used validated interview protocols to gather qualitative data on AI chatbot abuses and violations. The researchers also gathered suggestions from administrators to mitigate potential issues. To enhance rigor, the study

used document analysis to understand the case's background and procedures, including student handbooks, graduate studies catalogs, research manuals, and university websites. The findings provided valuable insights into the impact of AI chatbots on learning.

Findings

This section presents key themes derived from the participants' responses regarding the abuses and violations associated with the use of AI-powered chatbots in the classroom. The themes also reflect how they perceive the impact of AI technologies on academic integrity, student learning, and ethical practices in the educational environment. To ensure clarity and readability, participants' direct quotes have been lightly edited to remove filler words and repetitions while maintaining their original meaning and voice.

Abuses and Violations Associated with AI-Powered Chatbots

Overreliance on AI

Ethical concerns arise from the overreliance on AI for completing assignments, with students substituting AI for their critical thinking and problem-solving efforts. As ID13 stated, *"Though there are times that they rely mostly on AI to create their assignments, I make sure to provide them with feedback and correcting their work."*

Meanwhile, ID14 mentioned *"overreliance on chatbots for homework"* and *"use of autocomplete and predictive text,"* which may imply that students rely on chatbots to complete even the most straightforward tasks. ID03 shared the same sentiment. In addition, ID10 and ID12 believed that some of the AI responses *"mislead students."*

Academic Dishonesty

The use of AI-powered chatbots in educational settings has been linked to various abuses and violations. One of the most prominent issues is academic dishonesty. Students have been reported to use chatbots to cheat on assignments, thereby bypassing the learning process entirely.

> *AI has a big role in the field of education. We must be mindful in assessing the students' works since it can really deceive us that it's their real work. But as a teacher, it can really help us a lot not just in teaching but also in creating*. (ID21)

The preceding statement concurred with ID22, claiming that *"Academic integrity is somehow at risk if this tool will not be used in a proper manner."* In addition, both students and faculty participants mentioned *"academic dishonesty"* and *"students cheating on assignments."*

Misinformation and Biases

The analysis highlights concerns around misinformation and bias, with chatbots delivering incorrect information that misguides students, as can be gleaned from the recurring mention of *"distribution of false or misleading information," "inaccurate or biased responses,* and *"misleading students with incorrect information"* by most participants. As aptly stated by ID13:

> *I also explain that not all of the information generated by AI is reliable so they must learn to verify the information using scientific journals or news articles. They also have to cite AI if they use it as reference.*

Inappropriate Content and Interactions

Inappropriate content and interactions present another challenge, as chatbots sometimes generate irrelevant or unsuitable responses, which can lead to awkward or harmful student interactions. All participants from ID01 to ID15, except ID05, ID11, and ID13, cited a *"lack of age-appropriate content filters"* that indicates this type of abuse and violation.

Privacy Violations

Privacy violations are another primary concern, with cases of "*unauthorized access*" to student data (ID02, ID03, ID08) and *"inadequate data protection measures"* (ID14).

Security Risks

Security risks associated with AI chatbots include potential vulnerabilities to hacking and data breaches. The analysis highlights the responses from ID02, ID05, ID08, ID10, and ID14, as they pointed out "vulnerability to hacking" and "insufficient protection of data" as common issues. Similarly, ID03 linked "unauthorized access to student information" to the abuse and misuse of AI chatbots. In addition, ID15 stressed out that *"users of both gen AI and conversational AI are more likely being exposed to the often-exploited security weakness of some AI websites due to third parties."*

Impact of Abuses and Violations on the Learning Experience

Decreased Trust

The analysis highlights that teacher participants expressed "*reluctance to integrate AI tools"* into their courses, fearing that such tools would be misused or that they could diminish the traditional teacher-student dynamic, as cited by ID02 and ID08. Meanwhile, ID15 openly shared this:

> *AI is now part of our lives, most especially in education. I have no problem with that because I benefit from its use. I can only suggest that this technology be widely accepted to avoid branding of its use in the classroom as unethical.*

The preceding quote appears to imply that participants view the use of AI chatbots in the educational setting as unethical, suggesting a "*distrust in technological tools*." A similar segment in the transcript suggests *"reduced trust in the educational system"* (ID10).

Reduced Student Engagement and Motivation

When students rely on chatbots to complete assignments, their engagement with course content diminishes, negatively impacting their learning motivation. This can be gleaned from ID18's statement:

> *AI tools can be used as an aid in research but one should not rely on it. AI tools can assist you on the task at hand but depending on it loses the ability of an individual to do in depth analysis and thinking.*

AI misuse also leads to a negative impact on student motivation. ID04 and ID09 cited *"distraction"* and *"loss of interest"* that indicate this impact.

Compromised Academic Integrity

The abuses and violations associated with AI-powered chatbots have profound consequences on the overall learning experience. *It's very useful, make the job easier. However, academic integrity is somehow at risk if this tool will not be used in a proper manner.* (ID22)

Following this, ID01, ID06, and ID08 mentioned *"compromised academic integrity"* and *"compromised personalized learning experience."* Further, ID23 reiterated that AI offers a personalized learning experience when used correctly. *"AI technologies have the potential to greatly enhance educational practices, offering personalized learning experiences and efficient administrative support. However, their integration requires careful attention to data privacy, ethical considerations, and alignment with educational goals."* (ID23)

Ethical Dilemmas

The integration of chatbots raises ethical dilemmas concerning the role of technology in education. One participant noted, *"My experience with AI has been both promising and challenging,"* seemingly implying that the participants have dilemmas with AI technologies.

On the other hand, ID18 stated:

> *"AI chatbots are helpful particularly to those who knew how to use it properly and ethically."*

Also, this technological advancement raises ethical concerns that require careful consideration. As noted by ID23:

> *"Their integration requires careful attention to data privacy and ethical considerations."*

Similarly, ID11 stated:

> *"However, the use of AI tools requires careful consideration of several factors to ensure they are applied effectively and ethically."*

To address these issues, ID16 advocated for "*AI declaration section in every output"* while ID11 suggested that:

> *It is crucial to establish specific guidelines that govern AI usage, particularly in ensuring that the integrity and context of our topics are maintained. Without such guidelines, there is a risk that AI-generated content could inadvertently misrepresent or oversimplify complex subjects, potentially affecting the quality and accuracy of our work.*

Mitigation for Abuses and Violations

When asked about the presence of guidelines, participants were unanimous in stating that there is no policy in the university that directly addresses the use and deployment of AI in the classroom.

> *"No standard policy or ethical guidelines in the usage of AI."* (ID10)

> *"No clear data privacy policies, integration of ethical guidelines"* (ID12)

> *"There is no AI policy yet in RTU."* (ID13)

"No guidelines for appropriate chatbot use." (ID14)

"None." (ID15, ID18, ID19)

"No established guidelines yet." (ID17, ID20)

The researchers examined sources, including student handbook; graduate studies catalog; research manual and related forms like research capsule, protocol, and ethics application; office orders, memos, and bulletins; thesis and dissertation manuscripts; course syllabi; non-disclosure agreement form; and the university's official website.

The absence of a university policy and documents that support the ethical use of AI chatbots in the classroom concurred with the recommendations of the participants, directly and indirectly, mentioned as follows:

"Encourage ethical use"

"Ensure transparency in AI usage"

"Promote digital literacy"

"Develop and enforce policies"

"Provide training"

"Conduct regular evaluation review"

"Monitor and report abuses"

"Collaborate with tech developers"

Discussion

The findings highlight a complex interplay between the potential benefits of AI-powered chatbots and the ethical, pedagogical, and practical challenges they introduce.

Ethical Implications of Overreliance and Academic Dishonesty

Overreliance on artificial intelligence for academic tasks reduces critical thinking and student autonomy, thus undermining originality and self-directed learning (Ben-Jacob & Glazerman, 2021; Eke, 2023; Wishart, 2018). The regular rise in academic dishonesty issues emphasizes the urgent need for ethical policies and institutional protections regarding the use of artificial intelligence (Hokanson & Norden, 2019; Muhammad et al., 2015; Williams, 2024). Academic dishonesty compromises learning outcomes and lowers the quality of education; hence, constant study and modification for ethical AI application in education (Okaibedi, 2023; Pappagallo, 2024; Wang & Cornely, 2023).

Misinformation and Bias: A Persistent Threat

Concerns about biased or erroneous AI outputs match results suggest that AI can amplify existing prejudices in training data (Aquino, 2023; Hall et al., 2022; Leavy et al., 2020; Lewis, 2025; Lloyd, 2018). When false or biased information is accepted as accurate, this bias—which is shaped by elements including model correctness, capacity, overconfidence, and training data volume—may impede academic advancement and compromise educational standards (Hall et al., 2022). Further research is needed on potential biases in language learning technologies within classroom environments (Igartua et al., 2020).

Inappropriate Content and Privacy Concerns

Inappropriate content and insufficient age-appropriate filters, resulting from lapses in algorithmic design and content moderation, create an unsafe learning environment that reduces student participation (Lloyd, 2018). Policymakers and artificial intelligence developers should collaborate to establish data standards that promote wide representation and inclusion, thereby implementing a multipronged strategy that encompasses data management, social justice initiatives, and technological solutions (Leavy et al., 2020; Lloyd, 2018). Particularly with the massive data collection enabled by data-driven tools, the uncontrolled sharing of personal information without permission exacerbates privacy concerns in educational technology, especially under the Data Privacy Act of 2012, or also known as Republic Act No. 10173, which raises significant ethical and legal issues. Reducing legal penalties and stopping the erosion of trust depends on protecting student privacy; experts advise implementing proactive strategies, promoting greater openness, algorithmic accountability, and trust-building best practices (Zeide, 2017; Zeide & Nissenbaum, 2018). Ethical conundrums also include sentiment analysis in e-learning, which, despite its advantages, raises concerns about privacy and data manipulation issues (Ghag, 2024; Pappagallo, 2024).

Security Risks and Institutional Responsibility

Teachers expressed concern about data security issues, particularly vulnerabilities from external integrations that could compromise student personal information and the integrity of the learning platform (Yang et al., 2023; Zaman, 2023). Like ChatGPT, AI chatbots pose serious security concerns, including data breaches, malicious input, authentication issues, and confidentiality problems. Stronger cybersecurity measures, including limiting system access, using secure servers, strict access limits, security development lifecycles, and regular security audits concentrating on complicated authentication and privacy-enhancing technologies, are crucial to safeguard student safety and institutional data (Yang et al., 2023; Zainabi et al., 2024; Zaman, 2023).

Erosion of Trust and Engagement

The declining confidence in AI tools and the broader educational system calls for openness and responsibility, as false or biased material may cause student mistrust (Carbonel & Jullien, 2024; Pesonen, 2021). While some research indicates that chatbots can improve student involvement and intrinsic motivation (Yin et al., 2020), others suggest that they negatively affect critical thinking, learning engagement, and motivation (Deng & Yu, 2023). AI tools without sufficient control can lead to passive learning environments with reduced peer and professor interaction, thereby undermining the involvement necessary for student success (Baskara, 2023). Design and learning environment determines how much chatbots affect student involvement and learning (Baskara, 2023; Yin et al., 2020). Students who depend on AI for task completion may feel less motivated to engage deeply with course material, which could result in reduced academic performance (Baskara, 2023; Deng & Yu, 2022).

Broader Ethical Dilemmas and AI's Potential

Notwithstanding the difficulties, including those presented by large language models, the careful application of artificial intelligence in higher education can enhance general educational

experiences, create inclusive learning environments, and support academic integrity (Ali et al., 2024; Okaibedi, 2023; Wang & Cornely, 2023). From teacher-centered to student-centered education, artificial intelligence is transforming education by providing tailored learning experiences, enhancing student engagement, and improving outcomes through systems such as intelligent tutoring and virtual reality (Alashwal, 2024; Ali et al., 2024; Tang, 2024; Zaman, 2023). AI also simplifies administrative tasks, allowing teachers to focus on their critical responsibilities (Tang, 2024; Zaman, 2023).

Implications

The findings align heavily with SCOT theory, which has shown that AI's contributions to education were not predetermined but were based on social interactions and interpretations within their context. Social factors influence the application of technology, necessitating further exploration of how social groups, including educators, students, and policymakers, interpret and shape AI technologies, which leads to the observed ethical and pedagogical risks. This implies the importance of considering the socio-technical dynamics that frame AI's role in the educational process.

For educators and researchers in the ASEAN context, these findings encourage more contextually grounded inquiries into how AI tools are received and reshaped within diverse socio-cultural settings, especially among underrepresented or resource-constrained communities.

For educators and researchers in the ASEAN context, these findings encourage more contextually grounded inquiries into how AI tools are received and reshaped within diverse socio-cultural settings, especially among underrepresented or resource-constrained communities. Implications for practitioners, particularly educators and administrators, suggest a shift in pedagogical paradigms – one that not only integrates AI responsibly but also cultivates students' critical digital literacy. This demands professional development that equips teachers with the skills to leverage AI meaningfully while anticipating its risks.

Given the regional diversity of ASEAN nations, the findings further suggest the value of collaborative regional initiatives.

Conclusions and Recommendations

The study examines the use of AI-powered chatbots in education, highlighting ethical concerns and practical challenges. Key issues include overreliance on AI, academic dishonesty, misinformation, biases, inappropriate content, privacy violations, and security risks.

The study also reveals significant effects on the learning experience, such as decreased trust, reduced student engagement, compromised academic standards, and ethical dilemmas.

The lack of a formal policy governing the ethical use of AI chatbots in the classroom undermines the development of a consistent ethical framework and fails to align with global recommendations. The findings suggest that AI-powered chatbots can compromise the integrity and quality of education when misused.

Local institutions must establish comprehensive AI governance frameworks, including clear academic integrity policies related to AI use; offer ethics training for educators and students, strengthen digital literacy; and collaborate regionally to harmonize AI education

policies, drawing on case studies from Singapore, Malaysia, and Vietnam.

The study's findings are limited by its single-institution scope, but future research should explore longitudinal studies tracking changes in AI-related academic behavior, comparative studies across ASEAN public and private HEIs, and participatory action research involving faculty in co-designing AI governance protocols.

■ ■ ■

Statements and Declarations

1. **Funding details:** There has been no funding support for the work reported in this article.

2. **Disclosure statement:** The researchers declare that there is no conflict of interest.

3. **Acknowledgment:** The researchers greatly acknowledge the support of RTU and the participants in the completion of this study.

4. **Ethical Approval:** The RTU Research Ethics Committee approved the conduct of this study with clearance/certification number AMB57-24-030.

5. **Declaration of Generative AI in Scientific Writing:** During the preparation of this work, the authors used Google Gemini for data organization and Elicit for finding relevant literature in databases such as Google Scholar and ResearchGate. The researchers carefully reviewed and edited the content as needed. The claims and findings made in this study were unique, and they should not be exclusively linked to content produced by AI. The authors take full responsibility for the publication's content.

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Bionote:

Irene C. Gumiran is a Doctor of Philosophy in Educational Management and currently an Associate Professor II at Rizal Technological University. Her research focuses on education, conflict management, and social science.

Melvin N. Ambida is a Doctor of Philosophy in Technology Education and currently an Associate Professor V at Rizal Technological University. His research interests include educational technology, multicultural education, culturally responsive pedagogy, generative artificial intelligence, sustainable education, and open/distance education.