



# EXAMINING THE NEXUS OF ARTIFICIAL INTELLIGENCE IN SELECTED HIGHER EDUCATION INSTITUTIONS OFFERING CRIMINOLOGY PROGRAM: BASIS FOR POLICY FORMULATION

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## ABSTRACT

The main objective of this study is to examine the integration of Artificial Intelligence (AI) within selected higher education institutions (HEIs) offering criminology programs in the Philippines particularly the Taguig City University and Olivarez College which aimed to propose policy formulation for its effective and ethical use. The research employs a quantitative research approach and assesses two groups of respondents, such as faculty members and students, to determine the extent, nature, and effectiveness of AI integration in criminology curricula. Statistical tools were applied to ascertain the significant differences between the assessments of the two groups of respondents and to examine the relationship between expected benefits and concerns. The potential benefits were explored in terms of personalized learning, virtual teaching assistants, research assistance, assessment tasks, and data analysis which revealed the positive attitude towards integrating AI in education. Subsequently, the research identifies issues and drawbacks involving loss of critical thinking skills, data privacy, rapid cheating, reduced social interactions, and dependency on technology. Findings illustrated notable variations in perceptions, underscoring both the transformative potential and the critical challenges of AI use in criminology education. Regulations and guidelines that strengthen the utilization of artificial intelligence in criminology programs while addressing possible hazards and ethical issues have emerged as a result of this study, which examined AI's combined impact on education, improving learning while offering new challenges. Based on the results, the study proposes a comprehensive Artificial Intelligence policy framework to guide HEIs in responsibly integrating AI into their criminology programs, ensuring both academic integrity and technological advancement.

**KEYWORDS:** Artificial Intelligence (AI), Higher Education Institutions (HEIs), AI Integration, Policy Formulation

## INTRODUCTION

Higher education institutions had gradually adapted old teaching methods to meet the needs of current technologies. Given how quickly artificial intelligence penetrated every aspect of our lives, it is understandable that educational institutions looked for new ways to cultivate talent in order to keep AI growing. Its integration envisioned a future in which personalization, creativity, and efficiency combined to alter human experiences. This has various advantages, included in this were the ability to evaluate large volumes of data, provide responses, and clarify students' questions in a short period of time.

Artificial Intelligence (AI) emerged as a formidable instrument in revolutionizing educational landscape globally, providing various benefits that improved learning, instruction, and administrative operations. Higher education institutions (HEIs) providing criminology programs progressively adopted AI-driven innovations to prepare future criminologists with enhanced skills

and knowledge. As AI became more integrated into educational processes, its potential advantages in personalized learning, virtual teaching help, research support, assessment tasks, and data analysis transformed the instruction and study of criminology. Personalized learning,

administrative automation, and data-informed decision-making processes were just a few of the facets of higher education that employed artificial intelligence technologies. The primary contributions of AI usage were in its thorough analysis of the advantages and obstacles related to AI integration in educational settings, which offered a balanced viewpoint on both its potential and its drawbacks. Artificial intelligence substantially improved educational experiences by providing tailored learning routes and streamlining administrative procedures. However, these gains were not without challenges. Essential factors included are ethical considerations, the digital divide, and the necessity of enhancing educators' AI literacy for the successful implementation of AI in



higher education institutions. This enhanced the discourse in educational technology by providing practical insights and ideas for institutions that aimed to traverse the intricate terrain of digital transformation. It functioned as a crucial resource for educators, administrators, and policymakers seeking to utilize AI for educational advancement and innovation (Murdan & Halkhoree, 2024).

Multiple studies have proven the beneficial effects of AI on student performance and teacher productivity. Nevertheless, prudence must be observed while integrating AI in education, taking into account potential hazards and ethical quandaries. It is imperative to utilize AI as an instrument to assist human educators rather than supplant them altogether. The integration of AI in education promises to foster more inclusive and effective learning environments, accommodating individuals from varied backgrounds and skills. As AI technology progressed, the education sector expected an increasingly inventive applications that significantly influenced the future of learning (Zaman, 2024).

In Artificial Intelligence education, privacy was one of the main concerns that needed to be carefully checked. According to Hagedroff (2020), a recent semi-systematic examination of 22 AI ethics standards has revealed serious faults in the present guidelines, including the absence or neglect of a number of AI ethics, which are critical to AI research, development, and application. The necessity for AIED ethics is so great that it required immediate cooperation from all the groups involved, including researchers, educators, administrators, technologists, and members of the society as a whole. Concerns existed regarding students' excessive dependence on technology, which may diminish critical thinking, compromise data privacy, enable academic dishonesty, and impair interpersonal skills. This underscored the necessity for meticulous policy formulation to optimize AI application while alleviating concerns in real-world criminal justice scenarios.

## LITERATURE REVIEW

The studied literature and studies on artificial intelligence (AI) in education identify a variety of benefits and problems across multiple categories. In terms of personalized learning, Millora et al. (2024) and Wang, T. et al. (2023) show how AI may provide individualized learning experiences that boost student engagement and academic accomplishment, especially for heterogeneous groups such as overseas students. L. Chen, P. Chen, and Z. Lin (2020) underline the importance of AI in curriculum adaptation and administrative task efficiency, ultimately boosting educational quality. However, these articles express caution about balancing AI's benefits with ethical considerations such as data privacy.

Idroes et al. (2023) and Hié and Thouary (2023) investigate the possibility of AI to manage instructional tasks and alleviate teacher shortages. While these studies praise AI's potential to deliver good educational tools, they also warn about its

Furthermore, Jagadeesh Kengam (2020) asserted that while artificial intelligence (AI) presented substantial opportunities, it also entailed considerable threats. Accompanied by the positive feedback were the indisputable negative consequences it generates. Although AI applications in higher education had the potential to transform teaching and learning, they also introduced new ethical issues and risks.

Generative AI had equally impacted institutions both positively and negatively and the way students learn in a classroom setting. These tools significantly benefitted students in working more efficiently as well as for checking one's work of educators. Despite these, the work is not always correct nor held to a high standard. Although data suggested that AI is used as a tool and improved one's project, the same should not be utilized to produce a person's work. Additionally, students must not depend on AIs to perform their schoolworks or tasks because then they won't feel the need to pay attention in class and learn since they are aware that an AI can do the work for them. AI is neither beneficial nor harmful, it all relies on how a person uses the AI. Generative AI has the capacity to provide all kinds of ideas and readily available response to queries that take the load off for students in their academic subjects. Despite this, not all automated answers are concise; with that, the students must double-check and verify the truthfulness of sources and scrap the AI's response into their own. AI has been employed for the past years to "create insights on topics, essays, and other documents" which instead of committing plagiarism, it allowed students to take inspiration from these suggestions.

This study aimed to investigate the benefits and drawbacks of employing AI at certain HEIs that provide criminology programs. By investigating AI's dual influence on education enhancing learning while posing new challenges this study served as a foundation for developing regulations or policy that optimize AI use in criminology programs while addressing potential risks and ethical concerns.

downsides, such as job displacement and reliance on AI for information distribution. Similarly, Insail et al. (2022) report conflicting feelings among students and teachers about robot instructors, expressing both hope and concern about the impact of AI on teaching quality and student involvement.

In the context of Data Privacy Concerns, various research, including Robert et al. (2024) and Gonzales (2023), express concern about how AI acquires and processes sensitive data. These essays highlight the importance of strong legal frameworks for protecting student privacy and ensuring openness in AI algorithms. Estrellado (2023) takes this discussion to the Philippines, highlighting the significance of developing a technical infrastructure that complies with data protection rules, particularly in educational environments that rely heavily on AI.

Finally, studies such as David (2023) and Mahdi (2024) show key concerns about rapid cheating and reduced social interactions.



These articles examine how AI systems such as ChatGPT can be abused for academic dishonesty, perhaps leading to "cheating epidemics." Furthermore, Alimen (n.d.) and Mahdi (2024) highlight fears that AI will reduce human connection in education, thereby harming students' social and cognitive development. Throughout these themes, the research underlines that, while AI can provide significant educational benefits, careful consideration is required to mitigate the related hazards and ethical quandaries.

The cited articles are extremely relevant to the current study because they provide a thorough examination of the advantages, issues, and concerns associated with incorporating artificial intelligence (AI) in education, particularly in higher education

### OBJECTIVES OF THE STUDY

This study aims to examine the nexus of artificial intelligence in selected higher education institutions offering criminology programs toward a proposed policy integration. Specifically, it seeks to answer the following questions:

1. How do the respondents assess the advantages of artificial intelligence in selected higher education institutions offering criminology programs in terms of:
  - 1.1. Personalized Learning;
  - 1.2. Virtual Teaching Assistant;
  - 1.3. Research Assistance;
  - 1.4. Assessment Tasks; and,
  - 1.5. Data Analysis?
2. Is there a significant difference between the assessments of the two groups of respondents on the benefits of artificial intelligence in selected higher education institutions offering criminology programs in terms of the above-mentioned variables?
3. How do the respondents assess the issues and concerns in using the AI in selected higher education institutions offering criminology programs in terms of:
  - 3.1 Loss of Critical Thinking Skills;
  - 3.2 Data Privacy Concerns;
  - 3.3 Rapid Cheating;
  - 3.4 Reduced Social Interactions; and,
  - 3.5 Dependency on Technology?
4. Is there significant difference between the assessments of the two groups of respondents on the issues and concerns in using the AI in selected higher education institutions offering criminology programs in terms of the abovementioned variables?
5. Is there significant relationship between the advantages and issues and concerns in using the artificial intelligence in selected higher education institutions offering criminology programs?
6. Based on the findings, what policy can be proposed to regulate the use of AI in selected higher education institutions offering criminology programs?

### METHODOLOGY

In order to attain the objectives of this study, the researcher used the quantitative methods of research. It is the process of gathering and evaluating numerical information. It was used to identify patterns and trends, make forecasts, evaluate causal relationships,

institutions that provide criminology programs. These articles offer significant insights into crucial subjects such as personalized learning, virtual teaching assistants,

data privacy concerns, and the potential for rapid cheating, all of which are crucial to understanding the impact of AI on academic settings. They also emphasize ethical concerns, such as data protection and reliance on technology, which are critical for influencing policy development in the context of AI application in criminology education. The current research directly aligns with the studies' emphasis on balancing AI's benefits and risks, aiming to propose regulations that facilitate the successful integration of AI into educational programs.

and generalize findings to larger populations considered in the present scholarly research work. (Bhandari, 2023). It was also used to carefully and thoroughly address the research problem and acts as a guide for data collection, measurement, and analysis of the data gathered. Quantitative research is a process when gathering and the numerical data being evaluated. The researcher employed this to achieve the statistical results concerning the efficiency of the customized treatment plans, the descriptive survey method of quantitative research design. Furthermore, this method investigated the relationship between the benefits, issues, and concerns of artificial intelligence (AI) in criminology programs at selected higher education institutions, with the aim of recommending policy integration. The study used both a descriptive survey and a descriptive correlational approach to fully address the research topics.

Descriptive research is a methodological approach that attempts to represent the characteristics of the phenomenon or subject being studied. In scientific investigation, it is a fundamental instrument for researchers who want to observe, document, and evaluate the intricate intricacies of a specific topic. This method provides a comprehensive and detailed description that helps with comprehension, categorization, and interpretation of the subject matter (Singh, 2023). This study suits the descriptive survey method as it gathers data on respondents' perceptions of AI in criminology programs. This strategy will collect quantifiable data on how faculty members and criminology students view the benefits of AI for personalized learning, virtual teaching assistants, research assistance, assessment tasks, and data analysis. The survey method is useful for synthesizing the perspectives of large groups of respondents, providing a glimpse of their experiences and attitudes about AI. The descriptive survey will also be used to analyze respondents' opinions of AI-related challenges and concerns, such as loss of critical thinking skills, data privacy concerns, rapid cheating, reduced social interaction, and dependency on technology.

In addition, the descriptive survey method was employed in the study, which is a systematic data collection technique from a sample of the population to characterize and comprehend the traits, beliefs, or actions of that group. The present study utilized



the descriptive survey approach to obtain comprehensive data on the opinions of different respondents concerning the level of awareness and extent of the use of AI. This approach made data collection on particular topics easier, including assessment of the benefits, issues, and concerns of AI in HEIs. The respondents included faculty and students from one public and one private educational institution. According to (Vijayamohan, P., 2023), surveys provide an organized means of gathering a variety of perspectives, allowing an assessment of the general beliefs and experiences of people directly engaged in or impacted by the effects of AI in present times.

Also, the descriptive correlational research design was used in this study. A descriptive correlational study design describes the variables as well as the inherent correlations that exist between and among them. It is used in research investigations to generate static representations of occurrences and to investigate the relationship between different components. Correlational study examined two factors about a subject to identify their relationship. It looks into the relationships between two (or more) variables without the researcher controlling or manipulating them. It is a quantitative, non-experimental study. In a correlation study, variables should be measured without being manipulated. It is a study in which the researcher focuses on defining the relationships between variables rather than attempting to prove a causal relationship (Bongabong, 2022). A descriptive correlational design is employed to examine the correlations among the variables. This methodology is essential for assessing if notable disparities exist in respondents' evaluations of AI benefits and concerns among different groups, such as teachers and students. The correlational element of the research also examined the substantial relationship between the perceived benefits of AI and the issues and concerns expressed by the respondents. This methodology facilitated the identification of patterns and associations that can guide the proposed policy integration, ensuring it is both evidence-based and pertinent to the requirements of the criminology education sector.

This study analyzed the current advantages of AI in criminology programs while also emphasizing the linkages between its benefits and potential difficulties. This comprehensive approach ensured that the research topics are completely addressed and serves as a solid foundation for the development of policies governing AI use in higher education criminology programs.

### Scope and Delimitation

This study sought to investigate the relationship between artificial intelligence (AI) and specific higher education institutions that provide criminology programs, particularly Olivarez College and Taguig City University located in the southern National Capital Region. The study examined the assessments of faculty members and criminology students about the advantages of AI in personalized learning, virtual teaching assistant, research assistance, assessment tasks, and data analysis. Furthermore, it also examined the challenges and concerns associated with AI, including the loss of critical thinking skills, data privacy

concerns, rapid cheating, reduced social interactions, and dependency on technology. The study aimed to elucidate AI's influence on criminology education and to give pertinent policy recommendations for its proper integration by examining these factors.

This research is specifically confined to the aforementioned institutions and their criminology degrees, omitted other programs offered at these colleges. This targeted methodology facilitated a thorough analysis of the distinct obstacles and advantages related to AI within the realm of criminology education. The research focused on the viewpoints of two key groups: faculty members and criminology students, and ensured that the results were pertinent to those most affected by the incorporation of AI in their educational experiences.

This study encompassed the academic years 2023-2024 and 2024-2025, offered a current perspective on views toward AI in criminology education. This concentrated period facilitated a thorough analysis, but it may limit the applicability of the findings to wider contexts or future advancements in AI technology and education. This study sought to provide significant insights on the efficient integration of AI in criminology programs by clearly outlining its scope and delimitations while acknowledging the specific context of the research.

### Data Gathering Tool

The following instruments was utilized in the collection of data. Survey Questionnaire. This study primarily used a self-constructed survey questionnaire, carefully constructed to capture both demographic data and respondent assessments about the use of artificial intelligence (AI) in criminology education. The survey questionnaire is designed to provide a clear knowledge of the respondents' profiles and perspectives on the benefits and obstacles of AI integration. The study uses a questionnaire style to maintain data consistency, allowing for quick analysis and comparison across respondent groups. The survey will be sent to faculty members and criminology students at Taguig City University and Olivarez College using the Google Form to ensure that both perspectives are adequately investigated.

The section of the questionnaire collected important demographic and background information from the respondents. This part prompted respondents to submit information about their age, gender, civil status, and highest educational achievement (for professors) or year level (for students). It also collected information about their AI experience, specifically how often they use AI tools and what types of AI apps they utilize in their teaching or learning activities. These demographic and AI usage patterns aided in discovering any relationships between respondents' profiles and their views about AI, allowing for a better understanding of the differences in AI perspectives across teachers and students.

The second part of the survey was separated into two subparts that will answer the study's specific research topics. The first subpart will look at how respondents see the benefits of AI



in criminology teaching. It concentrated on critical areas such as personalized learning, virtual teaching assistants, research assistance, assessment tasks, and data analysis. Each of these domains illustrated important aspects of how AI might improve learning and teaching experiences. Respondents were asked to rate their level of agreement with these features of AI, producing quantifiable data that will be used to determine the overall perception of AI's benefits in criminology programs. The second subpart addressed the issues and concerns that occur when employing AI in criminology education. This section further discussed major issues such as the loss of critical thinking skills, data privacy concerns, rapid cheating, reduced social interactions, and dependency on technology. These considerations were critical for understanding the potential negative consequences of AI integration, which will influence policy recommendations.

### Data Gathering Procedures

The data-gathering procedure for this study began with the identification of the research problems, focusing on the relationship and implications of AI in higher education institutions offering criminology programs, particularly in areas like personalized learning, virtual teaching assistants, research assistance, assessment tasks, and data analysis, as well as issues such as loss of critical thinking skills, data privacy concerns, rapid cheating, reduced social interaction and dependency on technology. A draft survey questionnaire was developed and tested for validity and reliability to verify that the variables are appropriately measured. Once validated, the researcher requested consent from the Dean of the Graduate School and commenced data collection, followed by permission from the research site to distribute the survey to respondents.

The data collection phase began once finalized and approved the research instruments. The first stage involved the distribution of survey questionnaires to faculty members and criminology students at Taguig City University (TCU) and Olivarez College (OC). Purposive sampling was used to choose faculty members with relevant AI experience, while simple random selection was used to selected students from the first to fourth years. The survey was distributed either through Google form or physically, depending on the respondents' accessibility and choices. Clear instructions were provided for completing the questionnaire, and responders were given a particular time frame to submit their responses.

Following the data collection phase, the data verification and analysis phase commenced. All survey responses were collected, and the data was cleansed to exclude any incomplete or invalid responses. Descriptive statistics was used to study respondents' demographic data as well as their perceptions of AI benefits and concerns. The quantitative analysis used statistical techniques such as frequency counts, percentage and weighted mean to summarize the data, while tests such as t-tests and Pearson's r were performed to evaluate if there are significant differences across groups (e.g., faculty vs. students) and the relationship between the advantage and issues and concerns in using AI in criminology programs.

### Ethical Considerations

During the study on Examining the Nexus of Artificial Intelligence in selected Higher Education Institutions offering Criminology Program: Basis For Policy Formulation, numerous crucial ethical considerations were noted. All respondents, including both Faculty and students, provided informed consent, demonstrating their voluntary involvement and comprehension of the study's objectives. Stringent protocols were implemented to preserve privacy and secrecy, safeguarding sensitive information. The study sought to mitigate harm, ensure equitable treatment of all respondents, and offer potential advantages to both people and society. When necessary, we secured ethical approval and ensured transparency throughout the research process. The findings were appropriately reported, and the respondents were provided with debriefing sessions. In summary, the study adhered to ethical norms by upholding integrity, respecting participants' rights, and complying with relevant rules.

### RESULTS AND DISCUSSION

Table 1 is interpreted as Serious with an overall weighted mean of of 2.61. The indicator that ranked first among the seven was the serious problem of reliance of users on AI tools that serves as a factor that diminishes their critical thinking ability. It was followed by a mean value of 2.66 which implies a serious problem when learners do not engage in solving complex problems on their own. Shortly after, the third highest weighted mean falls under the indicator "AI use may limit students' exposure to critical criminological debates." with a value of 2.59. Among these, the lowest indicator is under the value of 2.51 which expresses serious concern of AI tools that discourage students from seeking diverse perspectives.



**Table 1**

**Level of agreement on issues and concerns in using AI in selected higher education institutions offering criminology programs in terms of Loss of Critical Thinking Skills**

Indicators	TCU		OC		Overall	
	M	VI	M	VI	M	VI
1. Students do not think critically if they rely too much on AI tools.	2.83	S	2.83	S	<b>2.83</b>	<b>S</b>
2. AI may not help students develop innovative ideas.	2.50	S	2.60	S	<b>2.53</b>	<b>S</b>
3. Students do not practice solving complex criminological problems on their own.	2.62	S	2.74	S	<b>2.66</b>	<b>S</b>
4. AI do not encourage students to develop problem-solving skills.	2.53	S	2.68	S	<b>2.58</b>	<b>S</b>
5. AI tools discourage students from seeking diverse perspectives.	2.44	LS	2.67	S	<b>2.51</b>	<b>S</b>
6. Students do not evaluate the credibility of AI-generated sources.	2.54	S	2.62	S	<b>2.57</b>	<b>S</b>
7. AI use may limit students' exposure to critical criminological debates.	2.54	S	2.71	S	<b>2.59</b>	<b>S</b>
<b>OVERALL</b>	<b>2.57</b>	<b>S</b>	<b>2.70</b>	<b>S</b>	<b>2.61</b>	<b>S</b>

The most significant concern is the reliance on AI tools diminishing users' ability to think critically. This relates to Eboras (2023) observation, which emphasize that excessive dependence on AI can significantly tarnish students' creative ideas and critical analysis. With the rise of automative tasks, AI deters students from conceptualizing new ideas, reducing their intellectual concentration and proficiency in problem-solving tasks. In a similar result, Kute (2022) also denotes that AI tools automate monotonous tasks, which implies rational laziness and a diminished ability for creative and critical ideas. Another

Table 2 indicates the interpretation as Serious with a weighted mean of 2.54 which shows that AI-related data privacy concerns are urgent problems for institutions such as TCU and OC. The highest indicator 2.60, interpreted as serious raises a serious concern when students provide sensitive information without realizing the extent of the access. Second highest risks falls in the AI related data breach that could damage students' career or reputation, 2.56 (serious) This concern draws attention to the possible long term consequences of AI-related data breaches on students' personal and professional life. AI systems Data Privacy

critical issue is the failure of students to immerse themselves in solving complex problems independently, reflecting in both Eboras and Kute's discussions. Eboras (2023) pinpoints how AI-assisted programs may lessen hands-on learning and problem-solving engagement, as students depend excessively on AI for answers. Kute (2022) adds that the lack of creativity in AI-generated solutions impairs students from venturing into scenarios with original approaches, further compounding their reliance on technology.

regulations may not be clear or understandable 2.55 (serious) this means that students and institutions are more likely to misuse or misinterpret data privacy regulations when they are unclear. Complete transparency about the use of student data is not guaranteed by AI systems, 2.54, interpreted as serious. Despite having the lowest rating, this indicator nonetheless raises significant concerns. Students' and stakeholders' trust may be damaged by ambiguous AI data utilization. Institutions must implement open procedures, such as thorough disclosure on the process by which data are gathered, handled, and shared of the students.

**Table 2**

**Level of agreement on issues and concerns in using AI in selected higher education institutions offering criminology programs in terms of Data Privacy Concerns**

Indicators	TCU		OC		Overall	
	M	VI	M	VI	M	VI
1. AI systems do not ensure complete transparency regarding how student data is used.	2.47	LS	2.69	S	<b>2.54</b>	<b>S</b>
2. Data privacy regulations do not adequately follow in AI-based education tools.	2.42	LS	2.68	S	<b>2.50</b>	<b>S</b>
3. Students' data is not be securely stored and may be vulnerable to breaches.	2.44	LS	2.66	S	<b>2.51</b>	<b>S</b>



4. AI algorithms may inadvertently expose sensitive information to third parties.	2.47	LS	2.61	S	<b>2.51</b>	<b>S</b>
5. Data breaches related to AI applications could harm students' reputation or career prospects.	2.51	S	2.66	S	<b>2.56</b>	<b>S</b>
6. Data privacy policies regarding AI systems used by students may not be clear or understandable.	2.48	LS	2.70	S	<b>2.55</b>	<b>S</b>
7. Students may unknowingly grant AI systems access to sensitive information.	2.56	S	2.69	S	<b>2.60</b>	<b>S</b>
<b>OVERALL</b>	<b>2.48</b>	<b>LS</b>	<b>2.67</b>	<b>S</b>	<b>2.54</b>	<b>S</b>

Robert, A. et al. (2024) argues that in order to deal with ethical issues regarding the use of student data and the safekeeping of sensitive information, there is a need for strong security mechanisms. To prevent abuse or illegal access, both findings urge to maintaining responsibility, openness, and strict adherence to data privacy regulations. Furthermore, disregarding these problems jeopardizes the career and also erode confidence in AI systems.

Moreover, Galvez, R.L. et al. (2019) revealed that barriers noted in connection with the inadequate resources and shortage of

Table 3 revealed the overall mean of 2.79 (Serious). Students may misuse AI to write essays they claim as their own with a mean value of 2.83 is placed as the highest concern in terms of Rapid Cheating. This highlights a serious problem where students employ AI tools to create essays, avoiding crucial learning processes. The integrity of the students work is diminished and the goal of the academic institution is compromised or abused. Rapid Access to AI-Generated Content may make it more tempting to cheat (M = 2.81, Serious) Learners may be more tempted to cheat on assignments or tests if they have easy access to AI generated content. AI Systems Enable Students to Bypass Learning by Copying AI-Generated Subject Matter, Increasing

qualified experts are constraints that might jeopardize security and privacy regulations. As highlighted in Table 14, uncertain AI data usage further exacerbates the issue supporting Galvez's claim that there are insufficient platforms for safe data storage. Lastly, aligning with Estrellado's (2023) advocacy for continuous faculty development, institutions ought to provide training and awareness campaigns to teach both students and instructors about the operation of AI, its potential risks, and best practices to protect data privacy.

Plagiarism (M = 2.80, Serious) The availability of AI generated subject content encourages students to bypass learning and directly opt for plagiarized content. This underscores the need for educators to create assessments that are less vulnerable to AI misuse, such as oral exams or problem solving tasks that necessitates personalized input. Despite being placed at the lowest, the fear that Use of AI May Create a Larger Gap Between Students Who Cheat and Those Who Do Not (M = 2.76, Serious) is still an evident problem. It highlights how AI may worsen inequality in educational settings. AI-cheating students benefit excessively, which unfairly disadvantages those who follow moral guidelines.

**Table 3**

**Level of agreement on issues and concerns in using AI in selected higher education institutions offering criminology programs in terms of Rapid Cheating**

Indicators	TCU		OC		Overall	
	M	VI	M	VI	M	VI
1. AI tools make it easier for students to complete assignments dishonestly without engaging in critical thinking.	2.78	S	2.81	S	<b>2.79</b>	<b>S</b>
2. Students may misuse AI to write essays that they claim as their own, bypassing the learning process.	2.80	S	2.89	S	<b>2.83</b>	<b>S</b>
3. Rapid access to AI-generated content might increase the temptation for students to cheat on exams or assignments.	2.77	S	2.89	S	<b>2.81</b>	<b>S</b>
4. AI systems enable students to bypass learning by copying AI-generated subject matter thus increasing the likelihood of plagiarized content.	2.77	S	2.87	S	<b>2.80</b>	<b>S</b>
5. AI prompt students to engage in cheating, as they can easily obtain fully written essays and answers.	2.76	S	2.82	S	<b>2.78</b>	<b>S</b>
6. The increasing use of AI in education may create a larger gap between students who cheat and those who do not, fostering unfair academic environments.	2.73	S	2.83	S	<b>2.76</b>	<b>S</b>
7. AI tools might lead to the erosion of academic standards by facilitating cheating and bypassing academic expectations.	2.75	S	2.82	S	<b>2.77</b>	<b>S</b>
<b>OVERALL</b>	<b>2.77</b>	<b>S</b>	<b>2.85</b>	<b>S</b>	<b>2.79</b>	<b>S</b>



Pazmiño (2023) and David (2023) both noted rising concerns over AI technologies such as ChatGPT that write essays for students. Undermining critical thinking reduces learning value and compromises institutional goals. This research was also supported by Fabella (2023), who highlights the influence of AI on academic integrity by recognizing Filipino students who are being questioned for its usage.

Fabella (2023) further suggests that in order to prevent abuse, this necessitates a call for innovative teaching and assessment strategies. Liao et al. (2021) in Pazmiño (2023) describes how uneven access to technology could heighten educational disparities, which is similar to Table 15's worry about differences between students who cheat and those who do not. (M=2.76). According to this study, ethical students suffer because those who have access to AI technologies have an unfair edge. In order to hinder these inequalities, Ventayen (2023) suggests reevaluating assessment methods with a focus on fairness and equality.

The data in Table 4 shows the growing concerns regarding reduced social interactions resulting from the use of AI in criminology programs in higher education institutions. Students May Miss Opportunities to Ask Questions and Seek Real-Time

Clarifications from Teachers (M = 2.60, Serious) This highest indicator highlights how AI tools have a serious disadvantage in that they hinders students' capacity to have a meaningful discussions with their instructors. Critical thinking and in-depth learning are hampered by this lack of interaction. AI's Lack of Emotional Intelligence and Human Interaction Limits Opportunities for Mentorship (M = 2.59, Serious) AI tools are unable to replace the individualized teaching styles and mentoring that human educators offer. This hinders students ability to develop emotional intelligence and other important soft skills which are necessary for their total development. The Absence of Human Interaction May Hinder Students' Development of Critical Social Skills (M = 2.57, Serious) AI tools diminished emphasis on human connection has an effect on students' development of critical social skills including empathy with others, collaboration, and coimunication skills. Limits Face-to-Face Interactions Between Students and Teachers, Reducing Opportunities for Social Engagement (M = 2.53, Serious) Despite being perceived as the least serious problem, this still presents a significant problem. Students' and instructors' relationships may deteriorate as a repercussion of fewer in-person encounters, which might lower participation and undermine integrity in the educational process.

Table 4

**Level of agreement on issues and concerns in using AI in selected higher education institutions offering criminology programs in terms of Reduced Social Interactions**

Indicators	TCU		OC		Overall	
	M	VI	M	VI	M	VI
1. Limit face-to-face interactions between students and teachers, reducing opportunities for social engagement.	2.47	LS	2.65	S	<b>2.53</b>	<b>S</b>
2. Diminishes students' need to communicate directly with peers or instructors.	2.45	LS	2.69	S	<b>2.53</b>	<b>S</b>
3. Resulted in students missing out on valuable interpersonal learning experiences, such as collaborative work and discussions	2.47	LS	2.68	S	<b>2.54</b>	<b>S</b>
4. The absence of human interaction may hinder students' ability to develop critical social skills like communication, empathy, and teamwork.	2.51	S	2.71	S	<b>2.57</b>	<b>S</b>
5. Limit students' ability to participate in group activities and discussions, which are key components of social learning.	2.47	LS	2.73	S	<b>2.55</b>	<b>S</b>
6. AI's lack of emotional intelligence and human interaction limits students' opportunities for mentorship and personal guidance from educators.	2.52	S	2.73	S	<b>2.59</b>	<b>S</b>
7. Students may miss the opportunity to ask questions and seek clarifications from teachers in real-time, which are essential for deep learning.	2.51	S	2.79	S	<b>2.60</b>	<b>S</b>
<b>OVERALL</b>	<b>2.49</b>	<b>LS</b>	<b>2.71</b>	<b>S</b>	<b>2.56</b>	<b>S</b>

According to Mahdi (2024), students' capability to participate in conversations and ask queries in real time is restricted by AI

systems' incapacity to copy human interactions. This study closely reflects Table 16 most concerning findings. He also added



how this lack of engagement hinders cognitive development, reiterating the indicators worry that students are missing out their chances for meaningful conversations that promote critical thinking.

In line with concerns about AI impeding the development of vital soft skills necessary for holistic learning, teachers of tomorrow contend that mentoring develops students' future academic and Interpersonal skills. According to Mahdi, students who lean

Table 5 is overall interpreted as Serious with an overall weighted mean if (2.65, Serious). Students Overly Dependent on AI May Struggle to Perform Tasks Without Digital Tools (M = 2.68, Serious) is discerned by the respondents as the most serious problem among other indicators. The possibility of the students losing their capacity to perform well in non-digital environments is evident. Over-reliance on AI technologies might impair flexibility, creativity, and critical thinking. With AI Handling Tasks Like Writing, Problem-Solving, or Calculations, Students May Miss Out on Developing Essential Manual and Cognitive Skills (M = 2.67, Serious) followed shortly as the second most concern. The development of core abilities such as problem solving, critical thinking, and analytical reasoning especially for

excessively on AI is at risk of ignoring disregarding collaboration and interaction that are necessary for both academic and professional settings. This issue mirrors a decline in social development as a result of AI's decreased focus on relationship with others. Similar to the study deduced by Mahdi, he pointed out that dependence on AI hampers necessary human connection that are vital for social and cognitive growth. Although systems are efficient at finishing tasks, they fall short in communication, emotional intelligence, and mentoring.

criminology students is at stake when regular academic activities are handled solely by AI. With AI Generating Answers, Students May Skip the Effort of Doing Their Own Research and Learning (M = 2.67, Serious) Students are deterred from conducting independent research, investigation, and discovery by AI's prompt responses. As a result, their knowledge base is weakened and their comprehension of academic topics is diminished. The More Students Depend on AI, the Less Confident They May Become in Solving Problems Without It (M = 2.65, Serious) While this concern is placed as the lowest among the rest, this concern nevertheless draws attention to a significant problem. Students who solely rely too much on AI may become less confident in their capacity to solve problems, which can lead to a vicious cycle of dependence that erodes their critical thinking.

**Table 5**

**Level of agreement on issues and concerns in using AI in selected higher education institutions offering criminology programs in terms of Dependency on Technology**

Indicators	TCU		OC		Overall	
	M	VI	M	VI	M	VI
1. Students face challenges due to unreliable internet access, which increases their dependence on technology for academic activities.	2.62	S	2.74	S	<b>2.65</b>	<b>S</b>
2. Students may start using AI for tasks that traditionally require manual effort, fostering over-reliance on digital tools.	2.57	S	2.70	S	<b>2.61</b>	<b>S</b>
3. AI provides instant solutions, reducing the need for students to find information themselves.	2.58	S	2.74	S	<b>2.63</b>	<b>S</b>
4. With AI generating answers, students may skip the effort of doing their own research and learning.	2.64	S	2.74	S	<b>2.67</b>	<b>S</b>
5. The more students depend on AI, the less confident they may become in solving problems without it.	2.65	S	2.66	S	<b>2.65</b>	<b>LS</b>
6. Students overly dependent on AI may struggle to perform tasks without digital tools, reducing their ability to function in non-digital settings.	2.64	S	2.76	S	<b>2.68</b>	<b>S</b>
7. With AI handling tasks like writing, problem-solving, or calculations, students may miss out on developing essential manual learning and cognitive skills.	2.62	S	2.78	S	<b>2.67</b>	<b>S</b>
<b>OVERALL</b>	<b>2.62</b>	<b>S</b>	<b>2.73</b>	<b>S</b>	<b>2.65</b>	<b>S</b>



Naval (2022) discusses on how challenges with internet access make reliance on technology deepen. The lack of these technology indicates a substantial discrepancy in the performance of students who depend on digital resources for academic purposes. . Additionally, Dasig Jr. (2013) emphasizes how performance and flexibility are affected by inadequate access to resources. Students struggle when digital help is lacking.

According to Salac & Kim (2016), the Philippines inadequate internet infrastructure contributes to making it more difficult for student and teachers to depend on digital tools on a regular basis. Despite technology is convenient, it poses the danger of compromising the emergence of fundamental cognitive abilities needed for analytical thinking and problem-solving scenarios.

Table 19

**Significant difference between the assessments of the two groups of respondents on issues and concerns in using AI in selected higher education institutions offering criminology programs in terms of: Loss of Critical Thinking Skills, Data Privacy Concerns, Rapid Cheating, Reduced Social Interactions, and Dependency on Technology**

Variables	Computed t-Value	Tabular t-Value	P-Value	Remarks on p-Value	Interpretation	Analysis
Loss of Critical Thinking Skills	2.17	2.18	0.050	Less than	Reject Ho	Significant
Data Privacy Concerns	9.17	2.18	0.000	Less than	Reject Ho	Significant
Rapid Cheating	5.19	2.18	0.000	Less than	Reject Ho	Significant
Reduced Social Interactions	2.71	2.18	0.000	Less than	Reject Ho	Significant
Dependency on Technology	6.00	2.18	0.000	Less than	Reject Ho	Significant

Table 19 states the Significant difference between the assessments of the two groups of respondents on issues and concerns in using AI in selected higher education institutions offering criminology programs in terms of the above variables. The p-value of all variables (Loss of Critical Thinking Skills = 0.05, Data Privacy Concerns = 0.000, Rapid Cheating = 0.000, Reduced Social Interactions = 0.000 and Dependency on Technology = 0.000) are equal and or less than the level of

significant of 0.05. This is to reject null hypothesis. This means that there is a significant difference between the assessments of the two groups of respondents on issues and concerns in using AI in selected higher education institutions offering criminology programs in terms of the above variables. This implies that the Olivares College have more issues and concerns about this issue than those in Taguig City University.

Table 20

**Significant relationship between the assessments of the two groups of respondents on the benefits of artificial intelligence in selected higher education institutions offering criminology programs and issues and concerns in using AI in selected higher education institutions offering criminology programs in terms of:**

Factors	Variables	Mean	R-Value	P-value	Interpretation	Analysis
<b>Benefits</b>	Personalized Learning	3.12	0.595 (Moderate Correlation)	0.290	<b>Accept Ho</b> (Greater Than)	<b>Not Significant</b>
	Virtual Teaching Assistant	3.12				
	Research Assistance	3.18				
	Assessment Tasks	3.11				
	Data analysis	3.07				
<b>Issues and Concerns</b>	Loss of Critical Thinking Skills	2.61				
	Data Privacy Concerns	2.54				
	Rapid Cheating	2.79				
	Reduced Social Interactions	2.56				
	Dependency on Technology.	2.65				



**If p-value is greater than the level of significant of 0.05, accept null hypothesis, otherwise reject**

Table 20 reveals the significant relationship between the assessments of the two groups of respondents on the benefits of artificial intelligence in selected higher education institutions offering criminology programs and issues and concerns in using AI in selected higher education institutions offering criminology programs in terms of the aforesaid variables. This has a moderate correlation with r-value of 0.595. Moreover, the p-value of 0.290 which is greater than the level of significant of 0.05, this is to accept the null hypothesis. This means that there is no Significant

**PROPOSED POLICY AND GUIDELINES ON THE USE OF ARTIFICIAL INTELLIGENCE AMONG BS CRIMINOLOGY STUDENTS**

**I. Rationale**

Artificial Intelligence (AI) has the potential to revolutionize the learning experiences of BS Criminology students through its integration into education. Particularly in the areas of personalized learning, assessment tasks, and research assistance, AI tools provide substantial advantages. AI facilitates the conduct of more exhaustive and efficient research by students, thereby improving their academic outputs and providing them with exposure to cutting-edge criminological methodologies, through the automation of data collection and analysis. In the same way, AI-supported assessment systems offer immediate feedback, which assists students in identifying areas for refinement and promotes a more dynamic learning process. The educational experience is further improved by personalized learning platforms, which customize content and activities to the specific requirements of each student. This enables students to learn at their own pace and concentrate on the areas that require more attention.

In addition to these benefits, the utilization of AI also poses significant obstacles that must be resolved to guarantee its ethical and effective implementation. One urgent concern is the potential for rapid deception, which can be facilitated by AI tools that are capable of generating text, solving problems, or replicating complex outputs with minimal effort. This type of misconduct compromises academic integrity and diminishes the value of authentic learning. Additionally, students may become excessively dependent on AI, relying on technology for problem-solving rather than cultivating the critical thinking and analytical skills that are indispensable for success in the criminology field. This excessive dependence could result in a workforce that is inadequately equipped to handle real-world scenarios that necessitate adaptability and independent judgment.

The development of artificial intelligence (AI) in education also poses a threat to the critical thinking skills of students. Students may forgo the more profound intellectual engagement required to analyze intricate criminological concepts or real-world criminal justice issues when AI tools offer pre-made solutions. This passive learning approach may restrict their capacity to implement knowledge in a practical and creative manner, a skill

relationship between the assessments of the two groups of respondents on the benefits of artificial intelligence in selected higher education institutions offering criminology programs and issues and concerns in using AI in selected higher education institutions offering criminology programs. This implies that the benefits of artificial intelligence are not directly related to the and issues and concerns in using AI in selected higher education institutions offering criminology programs.

that is essential for their future roles as criminology professionals. Furthermore, the utilization of AI may inadvertently diminish opportunities for social interaction and collaboration. Teamwork, interpersonal skills, and communication are all indispensable components of criminology education, as they are essential for community engagement and law enforcement applications. The development of these essential competencies may be impeded by an excessive reliance on AI for educational tasks.

In order to confront these obstacles and capitalize on the potential of AI, it is imperative to implement a policy that encourages the responsible and equitable application of AI among students of BS Criminology. This policy will underscore the ethical application of AI to improve learning outcomes, while simultaneously promoting critical thinking and maintaining academic integrity. It will establish explicit guidelines for the permissible use of AI, thereby guaranteeing that students are forthcoming about their dependence on these tools in their academic pursuits. Furthermore, the policy will promote activities that integrate AI-assisted learning with collaborative and hands-on experiences, thereby preserving the human interaction that is essential for the development of robust professional skills. The policy will optimize the advantages of AI while simultaneously preserving the educational and professional values that are fundamental to criminology education through the implementation of a comprehensive and forward-thinking approach.

**II. Objectives**

1. To improve the research capabilities, assessment tasks, and personalized learning experiences of students through the use of AI tools.
2. To establish unambiguous guidelines for the ethical and responsible application of AI in academic pursuits.
3. To prevent the exploitation of AI tools, such as plagiarism and cheating, in order to maintain academic integrity.
4. To foster autonomous intellectual engagement that extends beyond the outputs of artificial intelligence, in order to foster critical thinking and problem-solving abilities.
5. To encourage social interaction and collaboration by means of interactive and teamwork-oriented learning activities that are facilitated by AI.



6. To confront the obstacles of excessive AI dependence by advocating for a balanced and conscientious utilization of the technology.
7. To equip students with the necessary skills for professional practice, we will introduce practical AI applications that are pertinent to criminal justice and criminology.
8. To guarantee that all pupils, irrespective of their socioeconomic status, have equal access to AI tools and resources.
9. To assist faculty and students in the acquisition of the necessary skills for the responsible and effective integration of AI into research and education.
10. To ensure that the use of AI is consistent with the institutional objectives of promoting academic excellence, industry relevance, and innovation in the field of criminology education.

### III. Guidelines on the Use of Artificial Intelligence in Criminology Education

#### 1. Training for Faculty and Students on AI Integration

- 1.1. Train criminology instructors on the effective use of AI tools and emerging technologies through regular workshops and seminars.
- 1.2. Incorporate modules into the training that address ethical concerns, AI advancements, and methods for detecting misuse, including AI-assisted cheating.
- 1.3. Establish a community of practice among faculty members to exchange best practices and the latest information on AI trends and applications in education.
- 1.4. Incorporate mandatory ethical AI training sessions into the criminology curriculum for both students and faculty.
- 1.5. Examine the ethical implications of AI use in criminology and education practices, as well as responsible data management and privacy protection.
- 1.6. Assess the comprehension of participants regarding ethical AI utilization through case studies, role-playing scenarios, or assessments.

#### 2. Engaging Students in AI-Conflict Scenarios

- 2.1. Develop activities that encourage the development of critical thinking and decision-making skills by resolving AI-based ethical dilemmas or completing incomplete patterns.
- 2.2. Incorporate role-playing or simulations that necessitate students to evaluate scenarios in which AI outputs violate ethical or logical standards.
- 2.3. Facilitate post-activity reflective discussions to assess decision-making processes and foster a more profound comprehension.

#### 3. Implementation of AI Detection Tools

- 3.1. Incorporate AI-detection software into the institutional academic systems to monitor and

verify the originality of student submissions, such as essays, projects, and research outputs.

- 3.2. Require professors to utilize a variety of AI detection tools, including Turnitin, GPTZero, Crossplag, Originality.AI, and Scribbr AI Checker, to verify student assignments and activities.
- 3.3. Develop a definitive protocol for identifying AI-generated or plagiarized content, which encompasses the following: notifying students, offering constructive feedback, and specifying the appropriate repercussions for violations.
- 3.4. Provide regular updates on advancements or new tools available in the market, as well as train professors on the effective use of these detection tools.
- 3.5. Persuade professors to compare the results of multiple tools, if necessary, to guarantee the reliability and accuracy of flagged submissions.
- 3.6. Include guidelines for students regarding the permissible use of AI in assignments and the repercussions of violating academic integrity policies.
- 3.7. Consistently assess the efficacy of AI detection tools by conducting institutional evaluations and soliciting faculty feedback to guarantee that they adhere to ethical and educational standards.

#### 4. Policy Revision on Cheating Using AI

- 4.1. Revised the Students Manual to explicitly include a section that addresses academic dishonesty that involves the exploitation of AI technologies in examinations, assignments, and activities.
- 4.2. Define "cheating using AI" as the illicit use of AI tools to generate academic outputs, such as essays, projects, or answers, without proper attribution or in violation of individual activity instructions.
- 4.3. Establish explicit repercussions for infractions, which may encompass:
  - 4.3.1. Initial Violation: A formal warning and mandatory attendance at an academic integrity workshop.
  - 4.3.2. Second Offense: Failure to complete the activity or examination in which deception was committed.
  - 4.3.3. Third Offense: Failure to complete the course and potential suspension, contingent upon the severity of the violation.

#### 5. Awareness Campaigns on Ethical AI Use

- 5.1. Create an awareness campaign that emphasizes the ethical application of AI, with a particular emphasis on academic and research tasks.



- 5.2. Inform students about the risks, benefits, and responsibilities of utilizing AI tools through the use of social media platforms, seminars, and posters.
- 5.3. To promote positive adoption practices, emphasize success stories and examples of responsible AI use.

## 6. Promotion of Hands-On Learning and Interpersonal Activities

- 6.1. To mitigate the overreliance on AI, incorporate alternative hands-on learning methods,

including group projects, criminal simulations, and case studies.

- 6.2. Encourage interpersonal skill development through collaborative assignments and in-class discussions that prioritize face-to-face interactions.

To maintain a balance between the development of critical thinking and the use of technology, it is recommended that activities be incorporated that combine traditional learning methods with AI-assisted learning.

higher education institutions offering criminology programs.

## CONCLUSION AND RECOMMENDATION

As a result of this study, the following conclusions are marked by the researcher for these issues.

1. The benefits of Artificial Intelligence in selected higher education institutions offering criminology programs in terms of Personalized Learning, Virtual teaching assistant, Research Assistance, Assessment Tasks, and Data Analysis were perceived as Beneficial. Nonetheless, constant "beneficial" ratings across indicators highlight that while AI adds significance to educational sector, there is room for development to reach a "highly beneficial" level.
2. There is a significant difference between the assessment of the significant difference between the assessments of the respondents on the benefits of artificial intelligence in selected higher education institutions offering criminology programs in terms of the Personalized Learning, Virtual teaching assistant, Research Assistance, Assessment Tasks, and Data Analysis were perceived as Beneficial. Thus, the Null Hypothesis is rejected. This implies that Olivarez College has a higher assessment than from those in TCU.
3. The assessed issues and concerns in using the AI in selected higher education institutions offering criminology programs in terms of Loss of Critical Thinking Skills, Data Privacy Concerns, Rapid Cheating, Reduced Social Interactions, and Dependency on Technology. All of the problems were perceived as Serious. This implies a need to produce a more robust procedures to address these issues.
4. There is significant difference between the assessments of the respondents on the issues and concerns in using the AI in selected higher education institutions offering criminology programs in terms Loss of Critical Thinking Skills, Data Privacy Concerns, Rapid Cheating, Reduced Social Interactions, and Dependency on Technology. Null Hypothesis is therefore rejected. This implies that the Olivarez College have more issues and concerns about this issue than those in Taguig City University.
5. There is no Significant relationship between the assessments of the two groups of respondents on the benefits of artificial intelligence in selected higher education institutions offering criminology programs and issues and concerns in using AI in selected higher education institutions offering criminology programs. This implies that the benefits of artificial intelligence are not directly related to the and issues and concerns in using AI in selected

## Recommendations

Based on the conclusions drawn from the findings, the following recommendations are hereby proposed:

1. To attain the "Highly Beneficial" Status of the perceived benefits, the researcher recommends for the Training of criminology instructors and educators to proficiently use AI tools and teach emerging AI technologies to students, ensuring innovation in teaching and learning. Such training will help them acquaint with the newest trends in AI and help them combat and detect students who uses AI for cheating.
2. Engage students in exercises or activities where students will be given an AI conflicting scenarios or incomplete patters, requiring them to think critically and ethical analysis in decision-making.
3. Integrate ethical AI training for both faculty and students across all applications ensuring that data is not compromised while using AI driven tools.
4. Implement AI detection tools to lessen the problem on rapid cheating when it comes to submission on essays and projects and combat plagiarized content and use of AI-generated work.
5. Development of awareness campaign and promote ethical use of AI in research aspect.
6. To reduce the perceived risks associated with rapid cheating, dependency on technology, and loss of critical thinking skills, the researcher recommends for promoting alternative hands-on learning methods and face-to-face interactions.
7. Formulation of a comprehensive Artificial Intelligence Policy is highly recommended by the researcher to maximize the benefits and minimize potential harm associated with AI.

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