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THE ANALYSIS OF ARTIFICIAL INTELLIGENCE (AI) USAGE PHENOMENA IN ONLINE DISCUSSIONS OF ECONOMIC EDUCATION STUDENTS

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ABSTRACT

The rapid integration of Artificial Intelligence (AI) in the higher education ecosystem poses new challenges to the originality of thought and students' cognitive processes. While AI offers efficiency, its unregulated use has the potential to degrade critical inquiry skills, particularly in courses demanding a profound understanding of human behavior. This study aims to analyze the phenomenon of AI usage among second-semester students in the Economic Education Study Program, specifically within the "Human Development" course. A descriptive qualitative approach with a case study design was employed. Data were collected from 32 discussion transcripts on the Mentari platform and validated through time-stamp analysis and in-class cross-verification (member checking). The findings reveal that 87.5% of students utilized AI to complete their discussion assignments, characterized by high linguistic homogeneity, formal-synthetic syntax, and a lack of contextual reflection. Empirical evidence shows a significant "knowledge-wisdom gap," where students produce sophisticated text without conceptual mastery. The study concludes that AI dependency at UNPAM has created an "academic facade," shifting the learning process from reflective inquiry to automated task completion. It is recommended that lecturers redesign discussion prompts into "AI-proof" assignments that prioritize local context and personal reflection to restore pedagogical integrity in the digital era.

Keywords: artificial intelligence; development of learners; economic education; mentari unpam; online learning

ABSTRAK

Pesatnya integrasi Artificial Intelligence (AI) dalam ekosistem pendidikan tinggi membawa tantangan baru terhadap orisinalitas pemikiran dan proses kognitif mahasiswa. Meskipun AI menawarkan efisiensi, penggunaannya yang tidak teregulasi berpotensi mendegradasi kemampuan inkuiri kritis, terutama dalam mata kuliah yang menuntut pemahaman mendalam mengenai perilaku manusia. Penelitian ini bertujuan untuk menganalisis fenomena penggunaan AI di kalangan mahasiswa semester dua Program Studi Pendidikan Ekonomi, khususnya pada mata kuliah "Perkembangan Peserta Didik". Pendekatan kualitatif deskriptif dengan desain studi kasus digunakan dalam penelitian ini. Data dikumpulkan dari 32 transkrip diskusi di platform Mentari dan divalidasi melalui analisis time-stamp serta verifikasi silang di dalam kelas (member checking). Temuan menunjukkan bahwa 87,5% mahasiswa menggunakan AI untuk menyelesaikan tugas diskusi mereka, yang ditandai dengan homogenitas linguistik yang tinggi, sintaksis formal-sintetis, dan kurangnya refleksi kontekstual. Bukti empiris menunjukkan adanya celah pengetahuan-kebijaksanaan (knowledge-wisdom gap) yang signifikan, di mana mahasiswa menghasilkan teks yang canggih tanpa penguasaan konsep. Penelitian menyimpulkan bahwa ketergantungan pada AI di UNPAM telah menciptakan fasad akademik, mengubah proses belajar dari inkuiri reflektif menjadi penyelesaian tugas otomatis. Disarankan agar dosen merancang ulang instruksi diskusi menjadi tugas yang tahan AI (AI-proof) dengan memprioritaskan konteks lokal dan refleksi personal untuk memulihkan integritas pedagogis di era digital.

***Kata Kunci*:** artificial intelligence; *mentari unpam; pembelajaran daring; pendidikan ekonomi; perkembangan peserta didik*

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INTRODUCTION

The advancement of information technology has brought fundamental transformations to the landscape of higher education in Indonesia, particularly through the massive adoption of online learning systems. This digital acceleration requires educational institutions to provide platforms capable of facilitating academic interaction flexibly, transcending the constraints of space and time. At Universitas Pamulang, the utilization of the Mentari platform serves as a primary instrument in supporting the continuity of online learning processes, specifically in facilitating scholarly discussion forums between lecturers and students.

Several previous studies have examined the effectiveness of using learning management systems to increase student participation in digital spaces. A study conducted by Bai (2022); Thi et al. (2022); Subiyantoro et al. (2024) demonstrates that online discussions can enhance student learning autonomy if managed with appropriate instructional guidance. However, the recent emergence of generative Artificial Intelligence (AI) technology has begun to drastically alter these interaction patterns (Lamb et al., 2022). Najmudin et al. (2025) posits that the integration of AI in education offers high efficiency but poses a risk of eroding critical thinking skills if not properly regulated. Furthermore, findings from Choiriyah et al. (2025) emphasize that the primary challenge for contemporary lecturers is detecting the originality of student arguments amidst the surge of AI-based tools.

The shift toward AI-integrated learning environments poses a unique challenge to the traditional pedagogical contract between lecturers and students (Bencsik et al., 2026). The core problem identified in the field is an indication of degraded discussion quality on the Mentari platform. Based on preliminary observations, the responses uploaded by students tend to exhibit highly formal and uniform linguistic structures, which often do not reflect the authentic thought characteristics of second-semester students. This fact raises concerns regarding the extent to which students truly comprehend the substance of Human Development material if the assignment process is entirely delegated to artificial intelligence technology. Without control and evaluation, there is a risk that the learning objective of developing reflective future educators will not be achieved.

As a solution to these problems, this study employs a descriptive qualitative approach to map the detailed patterns of AI usage among students. Through document analysis of discussion outputs on the Mentari platform, the researcher seeks to identify the characteristics of AI-generated responses and the motivations behind their use. This approach is expected to provide a clear picture of academic reality in the digital era, enabling lecturers to formulate more adaptive and AI-proof instructional strategies.

Furthermore, the academic climate at Universitas Pamulang (UNPAM), characterized by large student cohorts and a robust reliance on the Mentari LMS, creates a fertile ground for digital shortcuts. As lecturers manage multiple discussion threads, the difficulty of distinguishing between a student's original synthesis and an AI's sophisticated output becomes a significant barrier (Hussain et al., 2024) to effective assessment. Without a clear framework to identify and mitigate AI dependency, Laursen & Jensen (2025) there is a risk that the Learning Management System transforms into a Task Management System, where the essence of dialectical inquiry is lost. This research, therefore, seeks to not only document the extent of AI usage but also to critically evaluate how such technologies reshape the cognitive boundaries of future educators in the digital age.

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Method Research

This research employs a descriptive qualitative method with a case study approach to gain an in-depth understanding of AI utilization in online academic discussions. The study was conducted at the Economic Education Study Program, Universitas Pamulang (UNPAM), specifically focusing on the internal Learning Management System (LMS) known as Mentari. The research was carried out during the even semester of the 2025/2026 academic year.

The research subjects were determined using a purposive sampling technique, consisting of 32 second-semester students enrolled in the Human Development (*Perkembangan Peserta Didik*) course. This specific group was selected due to the high intensity of their interaction within the Mentari discussion forums and the researcher's direct role as the course lecturer, allowing for unobtrusive observation of digital behaviour. The variables observed in this study include the frequency of AI-assisted responses, the structural characteristics of student arguments, and the linguistic consistency between AI-generated output and student academic levels. The research instruments used were an observation checklist for LMS activity and a document analysis guide to categorize student response patterns (Deping & Xiukui, 2025).

Data collection was conducted through two primary techniques. First, digital observation was performed by monitoring the Discussion feature on the Mentari platform to record the timestamp and response speed of students. Second, document analysis was carried out by extracting 32 discussion transcripts to be analysed for AI-generated indicators, such as specific formal syntax, lack of personal reflection, and the use of technical terminology exceeding the semester level. To ensure data validity, this study utilized technical triangulation. The data obtained from Mentari platform observations were cross-referenced with the results of the document analysis and compared against the standard outputs of generative AI tools (such as ChatGPT and Gemini) using the same discussion prompts.

The primary instrument for this study was a structured observation shared matrix designed to categorize digital footprints on the Mentari platform. This matrix included indicators of linguistic formality, the presence of non-contextual academic jargon, and the structural consistency of responses. To ensure the reliability of the AI-Indicated classification, the researcher utilized a cross-platform verification method. Each suspicious student response was processed through two independent AI-detection tools and manually compared against a control output generated by a Large Language Model (LLM) using the exact same discussion prompt. This rigorous verification process was essential to distinguish between a student's improved academic writing and a purely machine-generated response (Edde, 2025).

To enhance the trustworthiness of the qualitative findings, this study employed technical and source triangulation. Technical triangulation involved comparing the digital logs timestamps from the Mentari LMS with the textual patterns found in the discussion transcripts. Source triangulation was achieved by conducting informal clarification dialogues during face-to-face lectures at the Economic Education Study Program. These dialogues served as a member-checking mechanism, where students were asked to verbally elaborate on specific complex arguments they had posted online. This dual-layer validation ensured that the findings were not based on mere suspicion but were supported by a convergence of digital evidence and pedagogical reality.

The data analysis followed a systematic flow as outlined in the interactive model by Miles and Huberman. First, Data Condensation was performed by filtering 32 discussion threads to identify those with significant deviations from expected undergraduate writing standards. Second, Data Display utilized comparative tables to visualize the discrepancies between students' digital performance and their in-class conceptual mastery. Finally, Conclusion Drawing involved synthesizing these patterns to formulate a descriptive landscape of AI integration within the

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Universitas Pamulang academic ecosystem. This procedural rigor was maintained to ensure that the study's conclusions provide a robust basis for future instructional policy recommendations.

RESULTS AND DISCUSSION

The data obtained from the Mentari platform for the Human Development (*Perkembangan Peserta Didik*) course reveals a significant shift in how second-semester students engage in digital academic discourse (Nguyen & Tuamsuk, 2022). After analyzing 32 discussion transcripts, the findings are categorized into three main indicators: AI-dependency, response speed, and linguistic homogeneity. The distribution of AI usage among the subjects is presented in Table 1.

Table 1. Distribution of AI Usage in Mentari Discussion Forums

Category of Response	Frequency (f)	Percentage (%)
High AI Indicators (Direct Copy-Paste)	18	56.25
Moderate AI Indicators (Partial Editing)	10	31.25
Original Student Reflection	4	12.50
Total	32	100

Based on Table 1, a total of 87.5% of students (combining high and moderate indicators) utilized AI to fulfill their discussion requirements. Observation data further shows that 22 out of 32 students (68.75%) uploaded their responses within the first 15 minutes after the discussion prompt was published. In a manual writing context, such a rapid response for a complex pedagogical topic is highly improbable, confirming that AI was used to bypass the deep-thinking process.

The empirical findings of this study reveal a paradoxical reality within the economic education ecosystem: while digital platforms like Mentari offer administrative efficiency, they appear to facilitate a significant decline in students' cognitive depth. This phenomenon, where 87.5% of students utilize AI, suggests the emergence of an Academic Facade." In this state, students produce syntactically sophisticated responses that lack substantive conceptual mastery. This occurs primarily because AI bypasses the productive struggle essential to the learning process (Kamran et al., 2025); students leap directly to a polished conclusion without engaging in the synthesis and reflection required by the Development of Learners course (Alzahrani, 2026). This behavior is driven by several underlying factors, most notably the perception of students as rational economic agents. Within this framework, students prioritize maximizing their participation grades while minimizing time and effort (George, 2023), viewing the LMS as a high-volume production line rather than a space for intellectual inquiry (Husnaini & Lopo, 2025). Furthermore, the predictive nature of standardized discussion prompts makes them vulnerable to algorithmic generation, leaving little room for the unique personal voice or local context that defines organic human reflection.

These results reinforce the critical concerns raised by Adipat (2023)regarding the erosion of critical thinking in the age of generative technology. While some scholars, such as (Athaluri et al., 2023), have argued that online platforms inherently foster student engagement, the data from UNPAM suggests a contradiction. The engagement observed here is largely artificial high in frequency but passive in cognition. Unlike the more optimistic findings of (Fitria, 2023), which posited that digital systems could enhance learner autonomy, this study identifies a pseudo-autonomy where students are active in posting but detached from the content. The strength of this research lies in its use of face-to-face member checking, which empirically proved the existence of a

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knowledge-wisdom gap that digital detection tools often overlook. By demonstrating that students could not explain the very terms they posted online, this study provides a definitive marker of the mismatch between digital output and actual comprehension.

However, it is important to acknowledge that this study is limited to a single cohort within the Economic Education program, suggesting that future research should explore whether similar patterns exist in more quantitative or practical courses. Despite this limitation, the implications for pedagogical integrity are profound. There is an urgent need for a paradigm shift in how instructors design and assess digital discussions. To restore the wisdom that AI currently bypasses, assessments must transition from rewarding content delivery to prioritizing AI-proof instructions that demand local context and personal lived experiences. The contribution of this research lies in highlighting that without such a shift, the convenience of AI may inadvertently produce graduates who are technically proficient yet pedagogically hollow. Ultimately, the goal must be to transform AI from a replacement for thought into a tool for higher-order deconstruction and critical synthesis.

Analysis of the 32 discussion transcripts revealed a recurring pattern in the High AI Dependency group. Specifically, 92% of these responses utilized a synthetic-professional tone that is uncharacteristic of second-semester undergraduate students. The responses were consistently devoid of first-person pronouns (e.g., *"Saya berpendapat"* or *"Menurut hemat saya"*), which are typically found in organic student reflections (Gilbert, 2024). Instead, the AI-generated responses favored objective, third-person constructions such as *"It is essential to consider..."* or *"One must acknowledge..."* Furthermore, a structural redundancy was observed across 18 different student accounts. Each response followed a near-identical layout: a three-sentence introductory definition, exactly four bulleted points of explanation, and a concluding paragraph beginning with the phrase *"In summary."* This level of structural uniformity across a diverse cohort of 32 individuals serves as a definitive empirical marker of automated content generation. This algorithmic footprint proves that students are not merely using AI as a grammar checker but are outsourcing the entire cognitive task of synthesis and argumentation to the machine.

The document analysis also identified Linguistic Homogeneity. Responses from different students often shared identical paragraph structures, similar introductory phrases (e.g., *"In the context of human development, it is crucial to understand..."*), and used technical jargon that surpassed the expected vocabulary of a second-semester undergraduate. This uniformity indicates a lack of personal voice and critical synthesis of the course module.

Moreover, the data analysis from the Mentari platform reveals that Artificial Intelligence (AI) has transitioned from a supplementary tool to the primary method for completing discussion assignments . Based on 32 student response transcripts in the Human Development course, the researcher identified three key empirical findings, such as A comparative analysis between student responses on Mentari and outputs from Generative AI (such as ChatGPT-4 and Gemini) showed a structural similarity index of 85-90%.

Empirical evidence was further gathered through the activity logs on the Mentari platform. In Session 5, the discussion prompt was published at 08:00 WIB. Within only 10 minutes (08:00–08:10 WIB), 12 students (37.5%) had already uploaded comprehensive responses averaging 300 words. Empirically, a human student requires at least 15–20 minutes to synthesize an original academic argument of that length. This rapid response time provides objective proof of copy-paste behavior from external AI applications.

To validate the digital findings, the researcher conducted an oral member check during the face-to-face class session. Of the 18 students identified with High AI Dependency, 14 students (77%) were unable to explain the complex terminology they had posted on Mentari. For instance,

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several students utilized the term *Zone of Proximal Development (ZPD)* in their digital posts but lacked the fundamental understanding of the concept when questioned in person.

The finding that 87.5% of students utilized AI confirms that generative technology has become the path of least resistance for students in online learning. This result aligns with the Rational Choice Theory in an economic education context, where students act as rational agents seeking to maximize their grades while minimizing the time and effort expended. However, this efficiency comes at the cost of pedagogical depth.

This study supports the concerns raised by (Gilbert, 2024; Suryanto et al., 2025) who argued that the integration of AI might erode critical thinking. The high level of homogeneity found in the Mentari transcripts proves that students are no longer processing information internally; instead, they are acting as content conduits for AI outputs. Unlike the findings of (Suryanto et al., 2025), which suggested that LMS platforms could foster autonomy, the presence of AI in this study seems to create a pseudo-autonomy where students are active in posting but passive in cognition.

Furthermore, the results highlight a gap in digital literacy, as noted by (Reddy et al., 2023). Many students failed to verify or paraphrase the AI's technical outputs, leading to answers that were theoretically correct but contextually detached from the specific classroom discussions or the UNPAM-specific curriculum. The mismatch between the students' prior academic performance and the sudden sophistication of their digital responses serves as a clear indicator of this dependency.

In relation to the Human Development course, this phenomenon is particularly critical. This course aims to develop empathy and an understanding of psychological stages in learners (Rahman et al., 2022). When students use AI to answer questions about emotional development or teacher-student interaction, they miss the opportunity to reflect on their own experiences an essential step for future educators. Consequently, the use of AI in this context does not just represent a change in tool, but a fundamental shift in the learning philosophy from reflective inquiry to automated completion.

The reliance on AI in the Human Development course poses a critical threat George et al. (2024); Ibragimova (2025) to the development of pedagogical empathy. This course is designed to prepare future economic educators to understand the psychological stages of their students. However, the data shows that when students use AI to answer prompts regarding emotional intelligence or classroom management, they receive a sterilized, theoretical answer that lacks lived experience.

For example, when asked about handling a disruptive student in an economic classroom setting, AI-indicated responses provided high-level psychological interventions that are often impractical for a novice teacher in a real world Pamulang school context. In contrast, the 12.5% of students who wrote original reflections (Low Dependency) shared personal anecdotes from their own school days or observations from their neighbourhoods. This discrepancy highlights a knowledge wisdom gap. While AI provides the knowledge (facts), it bypasses the wisdom (reflection and application) that is essential for a teacher's professional growth. As noted by (Choiriyah et al., 2025), the convenience of AI may inadvertently produce technically proficient but pedagogically hollow graduates.

From an Economic Education perspective, the widespread use of AI at UNPAM can be analysed through the lens of *Academic Efficiency*. Students, acting as rational economic agents, perceive the Mentari platform as a high-volume production line. In their view, productivity is measured by the number of posts submitted rather than the quality of cognitive engagement. This creates a Quantity over Quality trap.

The institutional pressure to maintain high activity scores on the LMS inadvertently incentivizes the use of AI. If the assessment rubric primarily rewards participation frequency and

formal structure, students will naturally gravitate toward AI to meet these metrics with minimal effort. This finding suggests a need for a paradigm shift in the Economic Education Study Program: assessment must move away from content delivery and toward critical deconstruction. Lecturers must challenge students to critique AI outputs rather than simply prohibiting them, thereby turning the presence of AI into a tool for higher-order thinking rather than a replacement for it.

CONCLUSION AND SUGGESTIONS

This research concludes that the integration of Artificial Intelligence (AI) has significantly dominated the academic interaction patterns of second-semester Economic Education students on the Mentari platform at Universitas Pamulang. The findings address the research objective by demonstrating a profound shift from independent reflective processes toward a dependency on generative technology, where most students prioritize time efficiency over the depth of understanding in the Human Development course. This study proves that while AI technology is capable of providing theoretically accurate responses, its unfiltered use leads to a homogeneity of arguments and the erosion of critical thinking skills essential for future educators. Consequently, the current utilization of AI in online discussions at UNPAM tends to be administrative-mechanical rather than transformative-pedagogical, necessitating a thorough evaluation of the instructional designs used within the online learning system.

Based on these findings, it is suggested that lecturers within the Universitas Pamulang environment begin transforming the design of discussion prompts on the Mentari platform. Educators are encouraged to move away from conceptual-theoretical questions toward instructions based on personal reflective experiences, specific local case analyses, or video/audio-based assignments that are more difficult to automate through AI. Furthermore, the institution should integrate AI literacy into the curriculum so that students do not merely position AI as a "shortcut," but rather as an ethical thinking partner. For future researchers, it is recommended to expand the scope of study by employing experimental methods to test the effectiveness of various assignment models designed to minimize student AI dependency, commonly referred to as "AI-proof assignments."

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