
**“CRITICAL DISCOURSE ANALYSIS OF LANGUAGE AND
IDEOLOGY IN AI-BASED EDUCATIONAL CONTENT ON
INSTAGRAM AMONG UNIVERSITY STUDENTS”**

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ABSTRACT

The development of Artificial Intelligence (AI) within social media spaces has transformed the way university students access, understand, and interpret learning processes in the digital era. As a visual-digital platform, Instagram functions not only as a medium for sharing educational information but also as a discursive arena that shapes perceptions of intelligence, productivity, and students' academic identities. This study aims to analyze how language and ideology are represented in AI-based educational content on Instagram and how students interpret these experiences within their academic lives. This research employed a qualitative approach using Fairclough's Critical Discourse Analysis model to understand the relationship between digital language practices, students' social experiences, and the underlying ideological structures. Data were collected through in-depth interviews, digital observations of AI educational content on Instagram, and social media document analysis. The research participants consisted of 15 active student Instagram users and three AI educational content creators selected purposively. Data analysis was conducted using a thematic approach by reflectively interpreting language patterns, visual symbols, and participants' experiences. The findings indicate that AI educational content on Instagram reproduces ideologies of efficiency and academic productivity, thereby constructing new standards of the ideal student in the digital era. Students experience an ambivalent dynamic between the convenience offered by technology and concerns regarding the loss of reflective thinking processes, accompanied by pressures surrounding academic identity within a competitive digital culture. Nevertheless, some students demonstrate critical negotiation abilities toward the dominance of AI narratives on social media. This study contributes theoretically to the development of Critical Discourse Analysis within the context of social media-based digital education and reinforces the importance of critical AI literacy in higher education amid technological transformation.

Keywords: *Critical Discourse Analysis, Artificial Intelligence (AI), Instagram, Konten Edukasi Digital, Ideologi Bahasa; Mahasiswa, Literasi Digital Kritis, Pendidikan Digital, Media Sosial, WacanaAI.*

INTRODUCTION

The rapid development of Artificial Intelligence (AI) technology in recent years has transformed the way society produces, accesses, and distributes knowledge. Amid this digital transformation, social media—particularly Instagram—has evolved beyond a platform for entertainment and personal interaction into a highly influential arena for the production of educational discourse that shapes the mindset of younger generations, especially university students. AI-based educational content, such as tutorials on using ChatGPT, automated learning strategies, AI-assisted academic productivity, and narratives surrounding the “future of limitless education,” increasingly dominates students’ digital feeds. This phenomenon demonstrates that technology functions not merely as a learning support tool, but also as a discursive force that shapes how individuals understand learning, knowledge, and academic authority.

In the context of students’ academic lives, the presence of AI-based educational content on Instagram has led to significant changes in learning practices. Based on preliminary observations conducted on several digital educational Instagram accounts between January and March 2026, it was found that most content employed persuasive language positioning AI as the primary solution to students’ academic difficulties. Phrases such as “learn faster with AI,” “complete your thesis within hours,” or “AI replaces traditional learning methods” have become recurring narrative patterns reproduced across various posts. On the other hand, exploratory interviews with several students revealed an ambivalence of experiences. Some students perceived AI as beneficial in improving learning efficiency and expanding access to knowledge, while others expressed concerns regarding the decline of critical thinking skills, technological dependency, and the blurring boundaries between learning processes and academic automation.

This phenomenon indicates that language in AI-based educational content is not neutral. Language functions as an ideological instrument that carries particular values, interests, and power relations. From the perspective of Critical Discourse Analysis, social media serves as a space for meaning production in which certain ideologies are represented and normalized through digital language practices. As a visual-discursive platform, Instagram possesses significant power in shaping social perceptions because it simultaneously combines text, images, videos, symbols, music, and content distribution algorithms. Therefore, AI-based educational content on Instagram should not merely be understood as a medium of information, but also as a social practice that shapes knowledge construction, learner identity, and power relations within contemporary digital education.

The urgency of this research becomes increasingly relevant as the use of AI in education experiences rapid global growth. Reports from UNESCO and various international education forums emphasize that the integration of AI in learning must be accompanied by ethical awareness, critical literacy, and an understanding of its socio-cultural impacts. In Indonesia, the trend of AI usage among university students is developing more rapidly than the readiness of critical digital literacy within higher education environments. This situation has the potential to generate pragmatic and instrumental learning practices if AI narratives are accepted without critical reflection on the ideologies they carry. Therefore, understanding how language and ideology operate within AI-based educational content is essential for examining the current direction of digital educational transformation.

Several studies conducted over the past five years have discussed the relationship between social media, AI, and education from various perspectives. Lee (2025) explained that Instagram and TikTok have become new spaces for language learning and the production of students’ digital identities. Peng and Zhou (2026) found that digital discourse on social media influences students’ pragmatic competence in online learning processes.

Kopf (2026) emphasized that social media should be understood as an arena of critical discourse practices that shape power relations in digital society. Sugiarto and Manara (2026), through a multimodal discourse analysis approach, demonstrated that Instagram plays a role in constructing multilingual identities among EFL students in Indonesia. Pinzón-Arteaga (2026) revealed that students' interactions with AI chatbots shape emotional experiences and new affective relationships in postdigital learning. Meanwhile, Gonzalez-Mingot and Marín (2026) highlighted the emergence of education influencers on Instagram that encourage the commercialization of teachers' professional practices and education.

Although these studies provide important contributions to understanding the relationship between AI, social media, and education, most of them still focus on aspects such as technology usage, learning effectiveness, digital identity, or media literacy in general. Research specifically examining how language in AI-based educational content on Instagram reproduces certain ideologies, constructs knowledge-power relations, and shapes students' social experiences remains relatively limited. Furthermore, previous studies have tended not to address the dimension of students' subjective experiences in interpreting AI narratives as part of their everyday learning practices. Therefore, there remains a gap in the literature regarding an in-depth understanding of how AI discourse is produced, disseminated, and negotiated within social media-based digital educational spaces.

Based on this background, this study aims to analyze language and ideology in AI-based educational content on Instagram through the approach of Critical Discourse Analysis (CDA). The focus of the study is directed toward understanding how digital language practices represent AI in students' learning processes, how particular ideologies are reproduced through digital educational narratives, and how students interpret such content within their academic experiences. Theoretically, this study is expected to expand the scope of Critical Discourse Analysis within the context of AI-based digital education and social media. Practically, this research is expected to contribute to the development of students' critical digital literacy, higher education policies, and more reflective, ethical, and humanistic educational content production practices in the era of artificial intelligence

RESEARCH METHODOLOGY

This study employed a qualitative approach using Norman Fairclough's Critical Discourse Analysis (CDA) model. This approach was selected because the research focuses on gaining an in-depth understanding of how language, ideology, and power relations are represented in Artificial Intelligence (AI)-based educational content on Instagram, as well as how students interpret these discursive practices within their academic experiences. CDA enables researchers not only to analyze linguistic text structures, but also to relate them to social practices, digital culture, and ideological constructions that develop within society. This approach is particularly relevant because the phenomenon of AI usage in digital education cannot be understood solely from an objective perspective; rather, it must be interpreted as a social practice embedded with interests, meanings, and power relations.

The study was conducted within the context of university students in Indonesia who actively use Instagram as a learning medium and a source of academic information. The social context of the research lies in students' digital culture, which is increasingly connected to AI technology, particularly through educational content on social media. The research was carried out from January to April 2026, focusing on Instagram accounts that consistently produce AI-based educational content, such as the use of ChatGPT, AI productivity tools, AI learning assistants, and other digital learning technologies.

The research participants were selected using a purposive sampling technique by considering the relevance of participants' experiences to the focus of the study. This technique was chosen because the research required informants who had direct involvement

with the phenomenon being examined. The participants consisted of 15 university students from various study programs at both public and private universities who actively use Instagram to access AI-based educational content. The inclusion criteria for participants were: (1) active undergraduate students, (2) Instagram users for at least the past year, (3) followers of AI-based educational accounts, and (4) individuals who had used AI in academic activities such as searching for references, completing assignments, or independent learning. In addition to students, the study also involved three AI educational content creators on Instagram as supporting informants to better understand the process of digital discourse production from the perspective of content creators.

Data collection was conducted through three primary techniques: in-depth interviews, digital observation, and document analysis. In-depth interviews were carried out in a semi-structured manner to explore students' subjective experiences in understanding and interpreting AI-based educational content on Instagram. Each interview lasted approximately 45–60 minutes and was conducted either online through Google Meet or through limited face-to-face meetings depending on participants' availability. The interview guidelines were designed flexibly to allow deeper exploration of participants' experiences, perceptions, and reflections. All interview sessions were recorded using a digital recording device with participants' consent and were subsequently transcribed verbatim.

In addition to interviews, the researcher also conducted digital observations of Instagram content related to AI-based education. The observations focused on posts in the form of reels, captions, carousels, user comments, hashtags, and other forms of digital interaction. The researcher documented language patterns, visual symbols, persuasive narratives, and forms of AI representation within the content through screenshot techniques and digital field notes. Document analysis was conducted on Instagram posts and archived content from AI educational accounts that demonstrated high levels of engagement and relevance to the focus of the study.

Data analysis was carried out using Fairclough's Critical Discourse Analysis model, which encompasses three dimensions: text analysis, discursive practice, and social practice. The initial stage of analysis began with repeatedly reading interview transcripts and digital documents to gain a comprehensive understanding of the data. This was followed by an open coding process to identify major themes such as AI representation, the construction of the ideal student, learning efficiency, knowledge authority, and technological dependency. Related codes were then grouped into broader thematic categories.

At the next stage, the researcher analyzed how language choices, metaphors, persuasive diction, and visual structures within Instagram content constructed particular ideologies surrounding AI-based learning. The analysis also examined how the practices of producing and consuming digital content influenced students' understanding of learning processes in the technological era. To support data organization and coding, this study utilized NVivo 14, enabling the researcher to systematically categorize themes, trace discourse patterns, and visualize relationships among categories.

The trustworthiness of the data in this study was maintained through several qualitative validation strategies. The aspect of credibility was ensured through source and technique triangulation by comparing data obtained from interviews, digital observations, and social media documents. The researcher also conducted member checking by asking several participants to review the interpretation of the findings in order to ensure that the meanings accurately reflected their experiences. Transferability was maintained through the provision of detailed descriptions of the research context, enabling readers to understand the relevance of the findings in other similar contexts. Furthermore, dependability was achieved by systematically documenting the entire research process, from data collection to data analysis. Meanwhile, confirmability was ensured through data auditing, researcher

reflection, and the preservation of analytical records to minimize researcher subjectivity and bias.

This study also adhered to the ethical principles of qualitative research. Prior to the data collection process, all participants were informed about the objectives of the study, interview procedures, data usage, and their right to withdraw from participation at any time without any consequences. Participation was voluntary and confirmed through the signing of informed consent forms. Participants' identities were kept confidential by using pseudonyms throughout the research report. All digital data, interview recordings, and research documents were securely stored and used solely for the academic purposes of this study.

RESULTS AND RESEARCH

The findings of this study were obtained through in-depth interviews with student Instagram users and observations of Artificial Intelligence (AI)-based educational content circulating on social media. The analysis was conducted using a thematic approach within the framework of Critical Discourse Analysis (CDA). From the coding and data interpretation processes, four major themes emerged, illustrating how students interpret language and ideology in AI educational content on Instagram: (1) AI as a symbol of new intelligence and productivity, (2) the ambivalence between efficiency and the loss of reflective thinking processes, (3) pressures surrounding academic identity within a competitive digital culture, and (4) students' critical negotiation toward the dominance of AI narratives.

Table 1. Thematic Themes of Research Results

| Main Theme | Participant Experience Focus |
|--|---|
| AI as a symbol of new intelligence and productivity | AI is perceived as a new standard for modern students |
| Ambivalence between efficiency and the loss of reflective thinking processes | AI is perceived as a new standard for modern students |
| Pressure on academic identity within a competitive digital culture | AI content creates feelings of being left behind and academic anxiety |
| Critical negotiation toward the dominance of AI narratives | Students begin questioning the ideology behind AI content |

Theme 1. AI As A Symbol Of New Intelligence And Productivity

Most participants described that AI-based educational content on Instagram not only provides tutorials on technology usage, but also constructs a particular image of the ideal student in the digital era. In many of the observed contents, AI was represented as a symbol of intelligence, speed, and academic efficiency. Narratives such as “study smarter, not harder” or “successful students use AI” repeatedly appeared in reels, captions, and educational carousel posts.

This situation has shaped a new perception among students that the ability to use AI has become part of modern academic identity. Several students admitted that they had begun to feel that their academic productivity was measured by the extent to which they were able to utilize AI.

“Sometimes I feel that if I don’t use AI, it’s like being left behind. On Instagram, everyone looks extremely productive using ChatGPT, finishing assignments quickly, creating presentations quickly. So there’s this feeling... I also have to be like that.” (P3)

For some participants, AI created a new sense of confidence because they felt more capable of keeping up with the fast pace of academic life. However, on the other hand, these narratives also produced social standards that were not always consciously recognized.

“The content always says AI is the solution to every college problem. Over time, it makes you feel that studying manually is no longer effective.” (P7)

From the perspective of Critical Discourse Analysis, these findings indicate that the language used in AI educational content functions ideologically by constructing new definitions of students who are considered “intelligent” and “adaptive.” Instagram becomes a space where academic productivity is represented visually and symbolically, meaning that students not only consume information, but also internalize particular social standards regarding academic success.

The students’ experiences gradually shifted from admiration toward AI to the emergence of more personal anxieties as technology began to influence their own learning processes.

Theme 2. Ambivalence Between Efficiency And Loss Of Thinking Process

Behind the enthusiasm for the convenience offered by AI, students also experience an internal dilemma regarding the meaning of learning itself. Many participants revealed that although AI helps complete assignments more quickly, it simultaneously raises concerns about the decline of critical and reflective thinking abilities.

These experiences often emerged after students intensively used AI in their daily academic activities, such as summarizing learning materials, creating assignment outlines, or generating writing ideas.

“At first I was happy because assignments could be finished quickly. But over time, I realized I was becoming lazy to think on my own. It’s like everything immediately goes to AI.” (P10)

Several participants described a sense of guilt that was difficult to explain directly. They appreciated the efficiency provided by AI, yet also felt that they were losing the intellectual experience that previously emerged through reading and deep reflection.

“Sometimes I feel confused... am I really learning, or just transferring answers from AI? There’s this empty feeling after finishing assignments.” (P5)

These narratives reveal a social paradox in the use of AI in education. On one hand, technology is promoted as an innovative learning tool, but on the other hand, it potentially reduces students’ reflective engagement with the learning process.

Interestingly, some students did not completely reject AI. Instead, they attempted to find what they considered a “safe” boundary between technological assistance and personal intellectual ability.

“I think AI is good, but if everything is handed over to AI, eventually we’ll lose our own way of thinking.” (P1)

This theme demonstrates that students’ experiences with AI are complex and non-linear. AI is not merely understood as a technical tool, but also raises existential questions concerning the meaning of learning, effort, and academic authenticity.

These tensions later developed into broader social pressures as students began comparing themselves with representations of digital success on Instagram.

Theme 3. Academic Identity Pressures In A Competitive Digital Culture

AI-based educational content on Instagram not only influences the way students learn, but also shapes pressures surrounding academic identity within a competitive digital environment. Many participants admitted that they frequently compared themselves to content creators or other students who appeared highly productive through the use of AI.

Visual representations of aesthetic workspaces, automated study schedules, productivity charts, and narratives such as “stress-free studying with AI” construct an

idealized image of the modern student as someone who is constantly fast, efficient, and academically superior.

“When I see their content, it feels like everyone is extremely productive. I start feeling left behind because my way of studying still feels ordinary.” (P12)

These pressures do not always appear explicitly, but emerge subtly through social media algorithms that continuously display similar content. Students gradually feel that academic success must also be visibly demonstrated in digital spaces.

“Sometimes it’s exhausting. Instagram makes everyone look smart and organized, even though reality may not actually be like that.” (P8)

In several cases, students experienced academic anxiety because they felt insufficiently adaptive to the rapid development of AI technology.

“I’m afraid that in the future, every workplace will require AI skills while I’m still confused about how to use it.” (P14)

This phenomenon indicates that Instagram functions not only as an educational space, but also as an arena of social performativity. Students are not merely learning how to use AI, but are also learning how to present themselves as individuals who remain relevant within contemporary digital culture.

Amid these pressures, there also emerged students who began to take a more critical distance from the dominance of AI narratives on social media.

Theme 4. Critical Negotiation Of AI Narrative Dominance

Although most participants were influenced by dominant narratives surrounding AI, several students began to demonstrate reflective and critical attitudes toward educational content on Instagram. They realized that not all AI-related content is neutral and educational; some of it instead creates exaggerated expectations regarding technology.

This awareness generally emerged after students personally experienced the limitations of AI or observed how social media often simplifies the learning process into merely a matter of efficiency.

“Instagram content often makes AI look perfect, even though in reality not every AI answer is correct.” (P6)

Some students also questioned the economic motives and popularity-driven interests behind the production of AI educational content.

“Sometimes I feel that AI educational content today is more about selling the image of productivity than genuinely teaching people how to learn.” (P11)

These critical attitudes indicate that students do not function solely as passive recipients of the digital ideologies circulating on social media. Instead, they negotiate meanings based on their personal experiences, academic needs, and social reflections.

Nevertheless, this negotiation does not always result in complete rejection of AI. Some students instead attempted to develop a more balanced position toward the technology.

“I still use AI, but now I’m more careful. I see AI as a support tool, not a replacement for human thinking.” (P2)

This theme demonstrates that students’ experiences with AI occur within a dynamic tension between acceptance, dependency, resistance, and critical reflection. Such complexity indicates that the use of AI in education is not merely a technological issue, but also a matter of identity, power, and the ways humans interpret the meaning of learning in the digital era.

CONCLUSION

This study demonstrates that Artificial Intelligence (AI)-based educational content on Instagram functions not only as a medium of digital learning, but also as a space for discourse production that shapes how students understand intelligence, productivity, and academic identity. Through the approach of Critical Discourse Analysis, this research found

that the language and visual representations within AI educational content reproduce ideologies of efficiency, speed, and modernity that gradually influence students' learning experiences. Amid narratives of technological optimism, students experience complex dynamics: they feel supported by the convenience of AI, yet simultaneously confront anxieties regarding the loss of reflective thinking processes, pressures surrounding digital academic identity, and dependency on technology.

The findings of this study reveal that students' experiences with AI are neither singular nor linear. AI is simultaneously understood as an opportunity, a pressure, a support tool, and a source of academic anxiety. In this regard, the study provides a new understanding that digital transformation in education cannot be viewed merely as a technological change, but rather as a socio-cultural transformation that affects students' relationships with knowledge, themselves, and their academic environments. Educational content on Instagram creates a new discursive arena in which students continuously negotiate their positions as individuals who are "intelligent enough," "productive enough," and "relevant enough" in the AI era.

Conceptually, this study expands the application of Critical Discourse Analysis within the context of social media-based digital education. The findings demonstrate that technological ideology operates not only through verbal language, but also through digital visualizations, symbols of productivity, and social media algorithms that subtly yet intensively shape students' consciousness. Therefore, AI in education must be understood as a discursive practice that carries dimensions of power, identity, and social affectivity.

Practically, the findings of this study hold important implications for multiple stakeholders. For educational policymakers, this research highlights the need for AI integration policies that are not solely oriented toward learning efficiency, but also consider ethical dimensions, mental health, and the strengthening of students' critical thinking abilities. For universities and curriculum developers, the study emphasizes the importance of building critical AI literacy that enables students not only to understand how to use technology, but also how technology shapes their ways of thinking and social relations. Meanwhile, for digital media practitioners and educational content creators, this study serves as a reminder that AI-based educational narratives have psychological and symbolic impacts on students, and therefore content production should be conducted in a more reflective, humanistic manner rather than merely pursuing the performativity of digital productivity.

Nevertheless, this study has several limitations. The focus on Instagram-using students within a specific context means that the findings cannot yet fully represent broader and more diverse student experiences. The relatively homogeneous composition of participants in terms of age group and educational background also limits the emergence of perspectives from other groups, such as students from rural areas, students with limited digital access, or groups demonstrating strong resistance toward AI technology. In addition, the study was conducted within a limited time frame, making it unable to capture longitudinal changes in students' experiences alongside the rapid development of AI technologies.

Therefore, future research should expand both the context and methodological approaches of investigation. Subsequent studies may employ digital ethnography or netnography approaches to gain deeper understandings of students' interactions with AI in everyday life. Comparative studies across cultures, social media platforms, or academic disciplines are also important in order to examine how AI ideologies operate within different social contexts. Furthermore, future research could explore the relationships between AI usage, students' mental health, academic self-confidence, and the transformation of pedagogical relations within digital educational spaces.

Ultimately, this study emphasizes that behind the rapid advancement of AI technology lies a human experience that remains complex, fragile, and full of negotiations of meaning. The future of digital education should not merely focus on technological sophistication, but

must also create space for critical reflection, meaningful learning, and the sustainability of human relationships within an increasingly digitalized academic world.

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