



## **Language Disruption in the Era of Artificial Intelligence and Its Implications for the Indonesian Language Curriculum**

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### **Abstract**

This study aims to analyze the phenomenon of language disruption in the era of Artificial Intelligence (AI) and its implications for Indonesian language learning and curriculum development. The study used a qualitative, descriptive approach. Data were collected through literature studies, observations of the use of AI in learning, and analysis of curriculum documents. Data analysis was conducted using the interactive model of Miles, Huberman, and Saldaña, which includes data reduction, data presentation, and conclusion drawing. The results show that language disruption in the AI era is characterized by three main forms: automation of language production, language standardization, and simplification of language structure. These three phenomena impact students' language competencies, such as a decline in manual writing skills, an increase in evaluative skills regarding texts, and a growing dependence on technology. On the other hand, AI also has the potential to improve digital literacy and critical thinking skills if utilized appropriately. Implications for the Indonesian language curriculum include the need for integration of AI literacy, strengthening critical literacy, and digital ethics education. The curriculum must transform from one oriented towards structural aspects to a more contextual, adaptive, and technology-based approach.

**Keywords:** Artificial Intelligence, Digital Literacy, Digital Pragmatics, Language Disruption.

### **Abstrak**

Penelitian ini bertujuan untuk menganalisis fenomena disrupsi bahasa di era Artificial Intelligence (AI) serta implikasinya terhadap pembelajaran dan pengembangan kurikulum Bahasa Indonesia. Penelitian menggunakan pendekatan kualitatif dengan jenis deskriptif. Data dikumpulkan melalui studi literatur, observasi penggunaan AI dalam pembelajaran, serta analisis dokumen kurikulum. Analisis data dilakukan menggunakan model interaktif Miles, Huberman, dan Saldaña yang meliputi reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa disrupsi bahasa di era AI ditandai oleh tiga bentuk utama, yaitu otomatisasi produksi bahasa, standarisasi bahasa, dan simplifikasi struktur bahasa. Ketiga fenomena ini berdampak pada perubahan kompetensi bahasa siswa, seperti menurunnya kemampuan menulis manual, meningkatnya kemampuan evaluatif terhadap teks, serta munculnya ketergantungan terhadap teknologi. Di sisi lain, AI juga berpotensi meningkatkan literasi digital dan kemampuan berpikir kritis jika dimanfaatkan secara tepat. Implikasi terhadap kurikulum Bahasa Indonesia mencakup perlunya integrasi literasi AI, penguatan literasi kritis, serta pendidikan etika digital.

**Kata Kunci:** Artificial Intelligence, Disrupsi Bahasa, Literasi Digital, Pragmatik Digital.

## Introduction

The rapid development of Artificial Intelligence (AI) technology over the past decade has brought significant changes to various aspects of human life, including the domains of language and education. AI is no longer merely a technological tool; it has evolved into an intelligent system capable of automatically generating, processing, and engineering language through big data-based algorithms and machine learning. This capability positions AI as a new agent in human linguistic practice. The emergence of this technology has given rise to a phenomenon known as language disruption—a fundamental shift in the way humans use, understand, and produce language in everyday life (Hasibuan, Parta, Sholihah, 2023).

Language disruption is not solely characterized by technical changes in language use, but also by a paradigm shift in communication. Language that was previously produced through direct human cognitive processes can now be generated instantaneously through AI systems. In this context, humans are no longer the sole producers of language; they now share this role with machines capable of replicating and even optimizing linguistic structures systematically. This shift has far-reaching consequences across linguistic, social, and pedagogical dimensions, as language is not merely a tool for communication but also a mirror of identity and culture (Muhsyanur, Sudikan, 2023).

In the field of education, particularly in Indonesian language learning, this disruption presents both challenges and opportunities that cannot be ignored. Students no longer rely solely on their cognitive abilities and manual writing skills to produce texts; instead, they can leverage AI technology to generate various forms of writing quickly and efficiently. This development implies a shift in the orientation of learning—from an emphasis on text production to a greater focus on the ability to evaluate, analyse, and validate texts produced by both humans and machines (Sukini & Wisnu 2025).

The presence of AI has also fostered the emergence of new forms of language that are adaptive to technological systems. Language used in digital contexts tends to be more concise, efficient, and based on algorithmic patterns. This is evident in the growing use of abbreviated language, simpler sentence structures, and automated templates generated by AI systems. As a result, language styles have become increasingly uniform, losing some of their individual creative dimensions (Putra & Saputra, 2025)). This demonstrates that technology not only influences the way humans communicate but also shapes the very structure of language itself.

In modern linguistic scholarship, this phenomenon can be analysed through the lens of digital pragmatics, which emphasizes that the meaning of language is not determined solely by its linguistic structure, but also by the technological and media context in which it is used. AI-mediated communication tends to reduce subjective human elements—such as emotion and intuition—replacing them with more systematic, logical, and predictive communication patterns. This has the potential to transform the way humans understand the meaning and purpose of communication in social interaction (Hasani, 2025)). Understanding these changes is especially critical given that Indonesian, as the national language, serves an irreplaceable unifying function within formal education.

Furthermore, language disruption in the AI era raises complex ethical issues. The use of AI in text production raises questions about the authenticity of creative work, authorial responsibility, and academic integrity. Students can easily generate written content without engaging in deep cognitive processing, potentially lowering the quality of learning and blurring the boundary between original work and technologically

engineered output. In this context, communicative ethics becomes a paramount concern in Indonesian language education (Virnando & Hariyadi, 2024).

This phenomenon is also related to the concept of relational morality in communication, which emphasizes the importance of responsibility, self-awareness, and respect for others in language use. Irresponsible AI usage can lead to plagiarism, information manipulation, and the dissemination of irresponsible content. Therefore, students must be equipped with critical literacy skills to enable them to use technology ethically and responsibly (Muis, Nadhiroh, Yasin, 2025).

In terms of curriculum, the changes brought about by language disruption demand significant adjustments. The Indonesian language curriculum can no longer focus exclusively on structural aspects such as grammar and conventional writing skills; it must also accommodate the technological developments that influence linguistic practice. The integration of digital literacy and AI literacy has become an urgent need in education, so that students are not only able to use technology but also understand its impact on language and communication (Meisarah, Sudrajat, Wijaya, 2026).

AI literacy in Indonesian language learning encompasses the ability to understand how AI systems operate, evaluate the quality of AI-generated texts, and identify potential biases or errors in information. In addition, learning must emphasize the strengthening of critical and reflective thinking skills, so that students are not merely passive users of technology but become selective, responsible individuals in their utilization of AI (Susanto, 2023; Selwyn, 2019).

Concurrently, the role of teachers is undergoing transformation in response to this disruption. Teachers are no longer just conveyors of subject matter; they serve as facilitators guiding students in understanding and using technology wisely. Teachers need to integrate contextual and innovative pedagogical approaches to meet the challenges of the digital era. This includes developing instructional strategies that balance linguistic, technological, and ethical dimensions in an integrated manner (Lutfiani, Fauziah, Oganda, 2025).

Thus, language disruption in the era of Artificial Intelligence is an unavoidable phenomenon with wide-ranging implications for education, particularly for Indonesian language learning. It demands a paradigm shift in understanding language—from a traditional orientation toward a more adaptive and contextually responsive approach to technological advancement. This study is therefore significant in analysing the forms of language disruption occurring and their implications for developing a relevant, innovative, and future-oriented Indonesian language curriculum (Hasan, 2025).

## Method

This study employed a qualitative approach with a descriptive research design, selected for its capacity to provide in-depth understanding of the language disruption phenomenon within the context of Artificial Intelligence (AI) technological development, particularly in the domain of Indonesian language education. This approach emphasizes the interpretation of meaning, processes, and social dynamics underlying changes in linguistic practice, making it well-suited for examining phenomena that are complex, contextual, and multidimensional in nature (Creswell, 2016). Data sources comprised both primary and secondary data: primary data were obtained through non-participatory observation of AI technology use in writing activities, text comprehension tasks, and digital-based academic interactions; secondary data were gathered from scientific literature including journals, books, and education policy documents relevant to language

disruption and technology-based curriculum development (Lestari, 2025). Data collection was carried out through three main techniques: a literature study focused on publications from 2015 to 2025 to construct the conceptual framework; observation of AI usage practices in learning environments to obtain authentic, contextual data; and analysis of the current Indonesian language curriculum documents to assess the extent to which the curriculum has accommodated developments in digital and AI literacy (Sugiyono, 2019)

Data analysis in this study applied the interactive model proposed by Miles, Huberman, , consisting of three principal stages. First, the data reduction stage involved selecting, focusing, and simplifying data relevant to the research focus—namely language disruption and its curricular implications—followed by categorization according to themes such as forms of language disruption, impacts on learning, and curriculum development needs. Second, the data presentation stage entailed organizing data into a systematic descriptive narrative to facilitate deeper interpretation of patterns and inter-variable relationships within the study. Third, the conclusion-drawing stage constituted the process of formulating findings based on identified patterns, with conclusions remaining dynamic and continuously verified throughout the research process to ensure data validity and trustworthiness (Sugiyono, 2019). By employing this approach and analytical technique, the study is expected to yield comprehensive, valid, and relevant findings that contribute to the advancement of digital pragmatics scholarship and the development of the Indonesian language curriculum in the era of Artificial Intelligence.

## **Findings and Discussion**

The findings of this study indicate that the presence of Artificial Intelligence (AI) has produced significant changes in linguistic practice, particularly within the context of Indonesian language education. The language disruption that has occurred is not merely technical in nature; it also touches upon cognitive, social, and pedagogical dimensions. Language that was previously generated through human thought processes can now be produced instantaneously by algorithm-based systems, thereby transforming the ways in which students understand, use, and evaluate language in academic life. From the perspective of digital pragmatics, this phenomenon demonstrates that language no longer functions as a neutral symbolic system, but rather as a social practice shaped by technology (Virnando & Hariyadi, 2024).

### **1. Forms of Language Disruption in the Era of Artificial Intelligence**

Language disruption in the AI era is marked by several key changes that reflect a paradigm shift in language use. These changes are not limited to linguistic structure but also encompass the ways in which language is produced, distributed, and consumed in everyday life.

#### ***1.1 Automation of Language Production***

One of the most visible manifestations of language disruption is the automation of text production. AI technology—particularly generative AI—enables users to produce texts in various forms, such as essays, reports, or dialogues, simply by issuing a basic command. This process shifts the human role from that of primary language producer to that of user or director of a technological system. Such automation carries significant implications for the creative process of writing. Tasks that previously required extended cognitive engagement—planning, drafting, and revising—can now be executed instantaneously by

machines, potentially reducing students' cognitive involvement in language learning (Sukini, Sri, WIsnu, 2025)). Nevertheless, automation also opens new opportunities in education. Students can use AI as an assistive tool to develop ideas, improve sentence structure, and enhance writing quality. In this context, AI can function as a learning partner that supports the learning process, provided it is used wisely and critically (Muhsyanur, Sudikan, 2023).

### *1.2 Language Standardization*

Language disruption is also characterized by an increasing standardization of language use. Texts generated by AI tend to follow specific patterns learned from large datasets, producing language that is relatively uniform. This results in a reduction of individual stylistic variation that previously characterized each speaker or writer. This standardization has dual implications. On one hand, the language produced becomes more systematic, structured, and accessible. On the other hand, it can diminish creativity and personal expression in language use. Students who rely excessively on AI risk losing their ability to develop a unique and authentic linguistic style (Pratiwi, 2021; Lestari, 2025). Furthermore, language standardization may foster a homogenization of linguistic culture. Language use becomes increasingly global and less reflective of local or culturally specific contexts. In the context of Indonesian language education, this poses a challenge to preserving the diversity and richness of regional languages as components of national identity (Putra & Saputra, 2025).

### *1.3 Simplification of Language Structure*

Another change that has emerged is the simplification of language structure. AI tends to generate language that is more concise, efficient, and direct in conveying its central message. Sentence structures become simpler, with the use of common, easily understood vocabulary. This simplification aligns with the demands of digital communication, which prioritize speed and efficiency. However, linguistic simplification also risks reducing the complexity and depth of meaning. Emotional nuance, rhetoric, and a richness of stylistic expression are often beyond the capacity of AI systems to replicate (Herring, 2019). In Indonesian language learning, this condition may impair students' ability to comprehend and produce complex texts, such as literary works or argumentative writing. Accordingly, instructional strategies are needed that effectively balance communicative efficiency with depth of linguistic expression (Hasani, 2025).

## **2. Impact of Disruption on Students' Language Competencies**

Language disruption in the AI era has substantial implications for students' language competencies. These effects are not confined to writing skills but extend to critical thinking abilities and digital literacy as well. One of the primary impacts is a decline in manual writing proficiency. Students who are accustomed to using AI for text production tend to experience diminished capacity to organize ideas, develop arguments, and write independently. This suggests that technological dependence can erode foundational language skills (Rahmawati, 2024; Selwyn, 2019).

Conversely, there is evidence of growth in text-evaluative competence. Students familiar with AI tend to be better trained in assessing text quality, identifying errors, and comparing multiple sources of information. This capability constitutes an important dimension of digital literacy required in the information age (Hasani, 2025). Technological dependence itself is also a concern that warrants attention. Students who rely excessively on AI risk losing the capacity for independent and critical thought. The

use of AI in learning must therefore be balanced with the cultivation of reflective and analytical thinking skills (Susanto, 2023; Purwanto, 2023). When managed effectively, however, AI can serve as a powerful tool for improving learning quality—helping students understand material, generate ideas, and develop communication skills. In this regard, the teacher's role is pivotal in directing AI use in ways that align with educational objectives (Muhsayanur & Sudikan, 2023).

### **3. Implications for the Indonesian Language Curriculum**

Language disruption in the AI era demands a fundamental transformation of the Indonesian language curriculum. The curriculum can no longer focus solely on structural aspects; it must accommodate technological developments, and the competency demands of the 21st century. This aligns with the need for an education system that is adaptive, innovative, and responsive to the changing times (Putra & Saputra, 2025).

#### *3.1 Integration of AI Literacy*

A primary implication is the need to integrate AI literacy into the curriculum. Students must understand how AI operates, including its strengths and limitations in language generation. This literacy encompasses the ability to use, evaluate, and critically examine AI-generated output (Anderson, 2020). Integrating AI literacy is also essential for preventing the misuse of technology, such as plagiarism or information manipulation. With adequate understanding, students can utilize AI as a learning aid rather than a substitute for their own thinking. This integration must be supported by a curriculum that explicitly incorporates AI literacy competencies as part of the Indonesian language learning standards (Hasibuan, Parta, Sholihah, 2025).

#### *3.2 Strengthening Critical Literacy*

The Indonesian language curriculum must place a strong emphasis on critical literacy as a core competency. Students should be capable of analysing, evaluating, and reflecting on information obtained from both human and machine sources. Critical literacy is especially vital in navigating the increasingly complex information landscape of the digital era. Students need to be trained to distinguish between valid and invalid information and to understand the context and purpose of communication (Rahmawati, 2024). Critical literacy also encompasses the ability to identify algorithmic bias in AI systems and its effects on linguistic and cultural representation. In the Indonesian language context, this competency is highly relevant for safeguarding the continuity of the language and cultural identity amid the tide of technological globalization (Hasani, 2025).

#### *3.3 Digital Ethics Education*

Digital ethics constitutes another crucial dimension of curriculum development. Students must be equipped with a sense of responsibility in their use of technology, including matters of intellectual authenticity, academic integrity, and respect for copyright. Digital communication ethics is not merely about polite language use; it also involves moral awareness in virtual interactions. In this context, Indonesian language education plays a strategic role in cultivating the character of ethically responsible students (Susanto, 2023). Recent scholarly developments affirm that language disruption in the AI era is an inevitable phenomenon with broad educational implications. The integration of technology into learning demands a more adaptive and contextually grounded approach, requiring the curriculum to accommodate these changes to remain relevant to contemporary needs. This aligns with the view that education must be dynamic and

responsive to technological advancement, with the goal of producing a generation that is not only linguistically proficient, but also critical, ethical, and adaptive in navigating the digital era (Putra & Saputra, 2025).

## Conclusion

Based on the findings and discussion of this study, it can be concluded that language disruption in the era of Artificial Intelligence constitutes a complex and multidimensional phenomenon that comprehensively affects linguistic practice in Indonesian language education, characterized by three primary forms—namely the automation of language production, which displaces the human role as the sole producer of text; language standardization, which threatens individual stylistic uniqueness and the diversity of linguistic culture; and simplification of language structure, which risks reducing the complexity of meaning and the depth of expression; the impact of this disruption manifests on two opposing fronts, with a decline in manual writing proficiency due to technological dependence on one side, and an improvement in students' evaluative competencies and digital literacy on the other, demonstrating that AI represents not only a challenge but also an opportunity that must be leveraged wisely.

## References

- Hasibuan, R., Parta, I. B. M. W., Sholihah, H. I. A., & Damayanto, A. (2023). Transformation of Indonesian language learning with artificial intelligence applications: the era of the independent curriculum for learning in universities in Indonesia. *Indonesian Journal of Education (INJOE)*, 2(2), 341-363.
- Muhsyanur, M., & Sudikan, S. Y. (2023). Deep Learning in Indonesian Language Learning Transforming Educational Paradigms Through Artificial Intelligence. *TRICKS: Journal of Education and Learning Practices*, 1(2), 49-60.
- Sukini, S., Sri, B., Wisnu, N. A., & Danang, S. (2025). Digital media and artificial intelligence in teaching Bahasa Indonesia: Realities, potentials, and challenges. *Journal of Educational Management and Instruction*, 5(2), 371-387.
- Putra, A. S., & Saputra, D. (2025). Utilization of Artificial Intelligence (AI) in Indonesian Language Learning in Elementary Schools: Teacher Perceptions and Challenges. *Journal of Elementary Education*, 2(2), 63-72.
- Hasani, H. (2025). The role of Indonesian language teachers in era 5.0: Technology-based learning innovations and artificial intelligence. *Alinea: Jurnal Bahasa, Sastra dan Pengajaran*, 5(1), 121-135.
- Virnando, A., & Hariyadi, A. (2024, December). Challenges and Opportunities in Indonesian Language Learning in Era 5.0. In *International Seminar on Indonesian Language and Literature Education (INSPIRASI)*, 1(1), pp. 54-59.
- Muhsyanur, M., Mahas, N. H., & Gusni, G. (2024). Integrating Artificial Intelligence in Indonesian Language Learning Bridging Tradition and Innovation at Pondok Pesantren As' adiyah Sengkang, Indonesia. *Global Dialogues in Humanities and Pedagogy*, 2(5), 50-63.
- Muis, R. R., Nadhiroh, N., Yasin, R. L., Duryat, M., & Suherman, A. (2025). Analysis of vocational education policy in the context of artificial intelligence disruption and its implications for the merdeka curriculum. *Multidiscience: Journal of Multidisciplinary Science*, 2(2), 360-370.
- Meisarah, F., Sudrajat, D., & Wijaya, D. S. (2026). THE TRANSFORMATION OF LANGUAGE LEARNING THROUGH DIGITAL LITERACY: AN ANALYSIS OF THE ROLE OF

TECHNOLOGY AND ARTIFICIAL INTELLIGENCE IN ENHANCING STUDENTS' LANGUAGE COMPETENCE IN THE ERA OF INDEPENDENT LEARNING. *Review of International Journal Education and School Leadership*, 2(2), 94-105.

Lutfiani, N., Fauziyah, N., Oganda, F. P., Setyaningrum, R., & Natalia, E. A. (2025). The role of globalization in Indonesian evolution influence on media digital literacy language ai. *International Transactions on Artificial Intelligence*, 3(2), 192-200.