BEHAVIOR OF ACCESSING ARTIFICIAL INTELLIGENCE (AI) CONTENT IN INDONESIA: DESCRIPTIVE ANALYSIS BASED ON APJII 2025 SECONDARY DATA

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Abstract

The development of artificial intelligence (AI) has become one of the key indicators of global digital transformation. However, the level of AI utilization in society does not always align with the high penetration of the internet. This study aims to describe the behavior of Indonesians in accessing AI content based on secondary data from the 2025 Indonesian Internet Profile Survey published by the Indonesian Internet Service Providers Association (APJII). The study uses a descriptive approach with secondary data analysis through documentation studies and descriptive-narrative analysis of the percentage data presented by APJII. The results show that although internet penetration in Indonesia is relatively high, the level of AI usage is still relatively low. Among AI users, the most frequently accessed content is educational and entertainment content, while the use of AI for productivity and virtual assistants is still limited. The main reasons for not using AI are dominated by cognitive and literacy factors, particularly ignorance about AI technology and how to use it, rather than infrastructure or security factors. Additionally, there are differences in usage patterns based on demographic characteristics, with younger generations and male respondents utilizing AI more than other groups. These findings indicate that digital transformation in Indonesia is still in the early stages of connectivity and AI adoption. Therefore, increasing the use of AI requires a strategy that focuses not only on providing infrastructure, but also on strengthening inclusive and sustainable AI literacy.

Keywords: *Artificial intelligence, AI literacy, digital consumer behavior, secondary data, APJII.*

1. INTRODUCTION

The development of artificial intelligence (AI), particularly generative AI, in recent years has become one of the main markers of global digital transformation. Since the emergence of large language models that are easily accessible to the public, AI is no longer limited to corporate and research use, but has begun to be integrated into people's daily activities, such as searching for information, composing texts, analyzing data, and producing visual and audio content. The Stanford AI Index Report 2024 (Stanford University, 2024) shows that the adoption of generative AI has increased significantly, marked by a surge in the number of global users of AI-based applications reaching hundreds of millions in less than two years since its commercial launch. However, the report also emphasizes that the level of AI utilization at the individual level still varies greatly between countries and does not always correlate with high internet penetration.

More specifically, the Stanford AI Index Report 2024 (Stanford University, 2024) notes that in 2023, approximately 55% of respondents in developed countries stated that they had used generative AI applications at least once, while in developing countries the figure was below 30%. Even in countries with high internet penetration, regular use of AI is still limited. The same report shows that only about 21% of global users regularly utilize generative AI in productive activities such as work, learning, or decision-making. This data indicates that AI adoption does not automatically follow the availability of technology, but is greatly influenced by the cognitive and social factors of users.

Stanford's findings are in line with the OECD AI in Society 2023 report (OECD, 2023), which highlights a significant gap between access to digital technology and meaningful use of AI. The OECD reports that although the average internet penetration in member countries has exceeded 90%, the proportion of individuals who feel "confident" in using AI is only in the range of 25–35%. Furthermore, the OECD notes that more than 40% of respondents stated that they were reluctant to use AI due to a lack of understanding of how the technology works, concerns about output errors, and issues of ethics and data security. These findings reinforce the view that AI literacy is a key factor in determining the level of adoption and intensity of AI use in society.

In the national context, Indonesia is a country with a very large internet user base. The 2024 Indonesian Internet Profile Survey (Association, 2024) compiled by the Indonesian Internet Service Providers Association (APJII) notes that the number of internet users has reached 221.56 million people, or around 79.5% of the total population. This figure shows that in terms of infrastructure and basic access, the digital space has reached the majority of Indonesians. However, when APJII included a special module on AI utilization in the 2025 Internet User Profile (Association, 2025) the following year, a contrasting picture emerged. Only about 27% of respondents said they had used AI technology, while about 73% had not. This disparity indicates a significant gap between the availability of digital infrastructure and the actual behavior of the public in accessing AI-based content.

This condition is consistent with the findings (OECD, 2023) which state that developing countries with high internet adoption rates often face challenges in advanced digital literacy, including AI literacy. From a digital consumer behavior perspective, (Hellmut Schutte, 2000) asserts that the adoption of new technologies in Asia is greatly influenced by perceptions of usefulness, social norms, and the level of trust in technology. Without a sufficient understanding of the practical benefits and risks of using AI, people tend to be passive or reluctant to use the technology, even though access to devices and networks is available.

Studies on AI literacy reinforce this argument. (Tsz et al., 2021) define AI literacy as a set of competencies that include the ability to understand how AI works, use AI appropriately, evaluate the output produced, and weigh its ethical and social implications. Empirical studies in Indonesia show that AI literacy is still in the low to moderate category, particularly in terms of critical evaluation and ethical awareness (Sari et al., 2025). Similar findings were also reported in international studies on user perceptions of AI-based chatbots, which showed that most users only utilize AI functionally without a deep understanding of the limitations and potential biases of the technology. This indicates that the low level of AI utilization in the wider community is more related to issues of literacy and perceptions of usefulness than to limited access to technology.

Based on this background, a study entitled "Behavior of Accessing Artificial Intelligence (AI) Content in Indonesia: Descriptive Analysis Based on APJII 2025 Secondary Data" was compiled to provide an empirical description of how Indonesians interact with AI technology in the early stages of its adoption. This study aims to: (1) describe the level of AI usage in Indonesia; (2) map the types of AI content accessed; (3) identify the main reasons why people do not use AI; and (4) describe the demographic patterns of AI usage based on generation and gender. Using APJII 2025 secondary data analyzed descriptively and narratively, this study is expected to produce a comprehensive map of AI content access behavior and serve as the basis for formulating AI literacy strategies and digital transformation policies that are more inclusive and equitable.

2. RESEARCH METHOD

This research method uses a descriptive approach by utilizing secondary data sourced from the 2025 Indonesian Internet Profile Survey compiled by the Indonesian Internet Service Providers Association, APJII (Association, 2025). The descriptive approach was chosen because the main objective of this study was to systematically describe and map empirical phenomena, namely the behavior of Indonesians in accessing Artificial Intelligence (AI) content, without aiming to test cause-and-effect relationships or build predictive models. In social research methodology, descriptive research is used when the focus of the study is directed at presenting the characteristics, distribution, and trends of a phenomenon as it naturally occurs in the population (John W. Cresswell, 2018). Methodologically, descriptive research serves as a means of mapping empirical reality (descriptive mapping), especially for phenomena that are relatively new and have not been studied in depth. Kothari (2004) emphasizes that descriptive research is particularly relevant when researchers want to obtain a factual picture of certain social conditions, practices, or trends without manipulating research variables. Therefore, this approach is considered appropriate for examining the use of AI in Indonesia, which is still in the early stages of adoption at the mass level and requires empirical mapping before further explanatory analysis can be conducted.

This research is also categorized as secondary data-based research. Secondary data is understood as data that has been previously collected by other parties through systematic and documented procedures, which is then reused for scientific analysis purposes. According to (Uma Sekaran, 2016), the use of secondary data is methodologically justified as long as the data comes from credible sources, has clear collection procedures, and is relevant to the research objectives. The APJII 2025 report is considered to meet these criteria because it was compiled by an official institution, using a national survey with a broad range of respondents, and a standardized data collection methodology.

From a social research methodology perspective, the use of secondary data allows researchers to conduct macro-level analysis to understand patterns and structural trends in society. (Bryman, 2016) explains that secondary data analysis is particularly appropriate when the unit of analysis is not individuals directly, but rather aggregate data representing the population. In line with this view, the unit of analysis in this study is not individual respondents, but rather the aggregation of survey data presented by APJII in the form of tables and graphs.

The scope of this study is limited to the information available in the AI utilization module of the APJII 2025 report. The focus of the analysis includes: (1) the proportion of AI users and non-users; (2) the types of AI content accessed, such as education, entertainment, virtual assistants, and productivity; and (3) the main reasons why people do not use AI. This

scope limitation was consciously applied in accordance with the principle of delimitation of study in research methodology, namely limiting the study to maintain the focus of the analysis, methodological consistency, and accuracy of the interpretation of results (John W. Cresswell, 2018). The main material for this research is the official APJII 2025 report. The tools used include a computer or laptop, an internet browser to access source documents, a word processing application, and a simple worksheet to reorganize percentage data into visual forms such as bar charts. This study did not process raw data or perform advanced statistical calculations. All numerical data analyzed and presented was taken directly from the APJII report as stated in the official document.

The data collection technique was carried out through documentation studies, which is a systematic procedure for searching, selecting, and recording relevant information from written documents. In research methodology, documentation studies are used when research data is available in the form of institutional reports and the researcher acts as a data analyst, not as a primary data collector (Bryman, 2016). This approach allows researchers to maintain data objectivity and consistency because it does not involve direct interaction with respondents.

Data analysis was performed using descriptive-narrative analysis. Quantitative data presented by APJII in the form of percentages was rearranged into bar charts to facilitate the reading of patterns and comparisons between categories. Furthermore, the data was interpreted narratively to explain the general trends that emerged. According to (C. R. Kothari, 2004), descriptive analysis is used when researchers aim to organize simple quantitative data into meaningful descriptions without making statistical inferences. Thus, the analysis techniques used in this study's are considered to be in line with the research objectives, data types, and methodological design applied.

3. RESULTS AND DISCUSSION

3.1 Level of Access to Artificial Intelligence (AI) Content

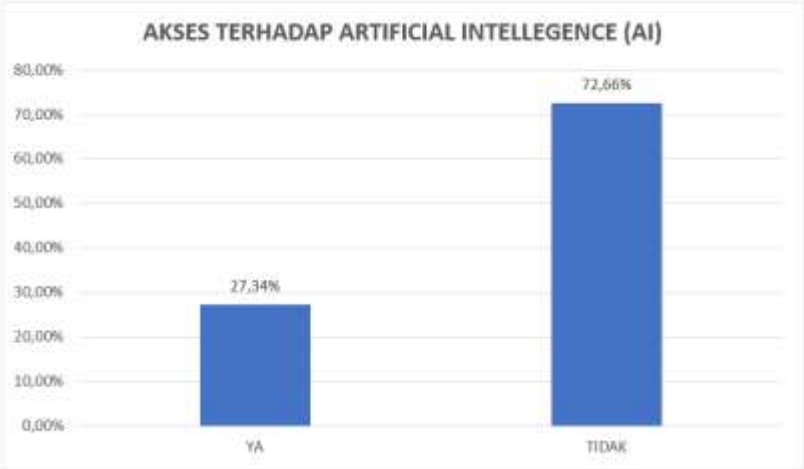

Figure 1. Access to Artificial Intelligence (AI)

Based on secondary data from the 2025 Indonesian Internet Profile Survey published by the Indonesian Internet Service Providers Association (APJII), when internet users were asked about their use of Artificial Intelligence (AI)-based services or content, the majority of respondents stated that they did not use AI, while only a small proportion stated that they did use AI. The data visualization in the form of a bar chart (Figure 1) shows a stark contrast

between the two categories, with the "do not use AI" bar appearing much higher than the "use AI" bar.

This study did not recalculate the numerical data, but rather read the trends from the percentages officially presented by APJII. This pattern indicates that the high level of internet penetration in Indonesia has not automatically been followed by the use of AI technology in people's online activities. In other words, the availability of digital infrastructure and network access does not guarantee the adoption of more advanced technology at the individual user level.

This finding is in line with the view in the digital technology adoption literature which emphasizes that the use of new technology is not only determined by the availability of access, but also by the perception of usefulness, relevance, and user comfort level. (Puntoni et al., 2021), in their study on consumer interactions with AI, show that even though AI technology is increasingly integrated into the marketing and digital services ecosystem, consumers do not necessarily adopt it. Psychological and cognitive factors, such as trust, understanding of AI functions, and risk perception, play an important role in usage decisions.

From a consumer behavior perspective, this condition can be explained through a consumer decision-making approach that places problem recognition (problem- -recognition) as the initial stage of technology adoption. According to (Noel, 2009), consumers will only seek and use a product or service when they realize a gap between the actual conditions and the desired ideal conditions. In the context of AI, many internet users may not yet feel that AI is a direct solution to their needs, so there is no strong incentive to use it.

In addition, digital marketing literature also emphasizes that the adoption of new technologies is often gradual and uneven. (Zahay, 2015) explains that in the digital ecosystem, consumers tend to adopt technologies that are perceived to provide clear and easily understood added value. Technologies that are considered complex, abstract, or irrelevant to daily activities will experience slower adoption, even though they are technically available.

Thus, the dominance of the "not using AI" group in the 2025 APJII data shows that Indonesia is still in the early stages of AI adoption at the consumer level. This condition does not solely reflect limited access or infrastructure, but rather issues of cognitive readiness, advanced digital literacy, and perceptions of the usefulness of AI among the public. This finding reinforces the argument that the national digital transformation strategy should not only focus on expanding internet access but also on improving understanding and relevance of AI technology to users' real needs.

3.2 Types of Artificial Intelligence (AI) Content Most Frequently Accessed

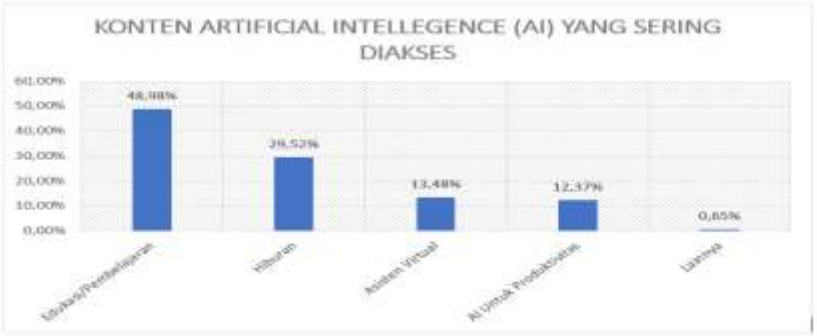

Figure 2. Types of Artificial Intelligence (AI) Content Most Frequently Accessed

Based on secondary data from *the 2025 Indonesian Internet Profile Survey* (Association, 2025) published by the Indonesian Internet Service Providers Association (APJII), respondents who stated that they use Artificial Intelligence (AI) showed uneven preferences for the types of content accessed. As shown in Figure 2, the most frequently accessed AI content is education/learning (48.98%), followed by entertainment (29.52%). Meanwhile, the proportion of AI use as a virtual assistant (13.48%) and productivity tool (12.37%) is relatively lower, while other categories only account for a very small portion (0.65%).

Researchers did not recalculate the data, but rather read the trends from the percentage distribution presented by APJII. This pattern shows that the use of AI in Indonesia is still concentrated on functions that are direct, practical, and easy to understand, especially in the context of learning and entertainment consumption. The dominance of educational content indicates that AI is perceived more as a learning aid and information search tool, rather than as a technology that is deeply integrated into daily work activities or productivity management.

This finding is in line with the literature on digital consumer behavior that distinguishes between utilitarian and hedonic values in the use of technology. (Noel, 2009) explains that consumers tend to adopt new technologies first for functions that provide immediate and easily recognizable benefits. In this context, AI for education and learning has clear utilitarian value, such as helping to understand material, answering questions, or summarizing information, making it more readily accepted by early adopters.

The high accessibility of AI content for entertainment can also be understood through the perspective of hedonistic consumption behavior (Santini et al., 2019) , through a meta-analysis of impulsive behavior, showing that digital content that is light, enjoyable, and minimally cognitively demanding tends to be more easily adopted by consumers. AI in the form of entertainment, such as image generation, visual filters, or creative content, provides an instant and engaging experience without requiring deep technical understanding, making it more accessible to the general public.

Conversely, the relatively low use of AI as virtual assistants and productivity tools indicates that the integration of AI into work activities, planning, and decision-making remains limited. The literature on technology adoption confirms that the use of technology at the productivity level requires advanced digital literacy, trust in the system, and the perception that the technology is truly relevant to individual work needs (Zahay, 2015) . Without adequate understanding, consumers tend to avoid using AI for functions that are considered complex or risky.

These findings are also consistent with international research on digital technology adoption in developing countries, which shows that new technologies are often used first for personal and consumption needs before shifting to more strategic and professional functions. (emphasizes that in the context of developing countries, the adoption of digital technology is strongly influenced by perceptions of ease of use and suitability for the user's lifestyle, while utilization for productivity purposes requires a longer adaptation process.

Thus, the distribution of AI content types accessed in the APJII 2025 data shows that AI utilization in Indonesia is still in its early functional stages, with a focus on education and

entertainment. AI has not yet been fully positioned as a productivity tool or strategic work assistant by the majority of users. This condition confirms that improving AI literacy needs to be directed not only at technical capabilities but also at understanding the value of AI in the context of work, decision-making, and other productive activities.

3.3 Reasons for Not Using Artificial Intelligence (AI)

Figure 3. Reasons for not using AI

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This finding is in line with the literature on digital consumer behavior, which distinguishes between utilitarian and hedonic values in the use of technology. It explains that consumers tend to adopt new technologies first for functions that provide immediate and easily recognizable benefits. In this context, AI for education and learning has clear utilitarian value, such as helping to understand material, answering questions, or summarizing information, so it is more quickly accepted by early users.

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These findings are also consistent with international research on digital technology adoption in developing countries, which shows that new technologies are often used first for personal and consumption needs, before moving on to more strategic and professional functions. (Manzano-García & Ayala-Calvo, 2020) emphasize that in the context of developing countries, the adoption of digital technology is strongly influenced by perceptions of ease of use and suitability for the user's lifestyle, while utilization for productivity purposes requires a longer adaptation process.

Thus, the distribution of AI content types accessed in the 2025 APJII data shows that AI utilization in Indonesia is still in its early functional stages, with a focus on education and entertainment. AI has not yet been fully positioned as a productivity tool or strategic work assistant by the majority of users. This condition confirms that improving AI literacy needs to be directed not only at technical capabilities, but also at understanding the value of AI in the context of work, decision-making, and other productive activities.

3. 4 Synthesis of Findings and Implications

When the four data groups presented in Diagram 1 to Diagram 4 are read in an integrated manner, a number of important patterns emerge that provide a comprehensive picture of the position and challenges of Artificial Intelligence (AI) utilization in Indonesia . First, there is a clear gap between the high level of internet penetration and the low level of AI usage. This condition shows that digital transformation in Indonesia has only reached the stage of connectivity and access, but has not yet fully progressed to the stage of widespread utilization of smart technology. This finding is in line with global literature which emphasizes that AI adoption does not automatically follow the expansion of digital infrastructure, but requires cognitive, social, and institutional readiness on the part of users (Dwivedi et al., 2021).

Second, among AI users, educational and entertainment content dominate the types of content most frequently accessed. This pattern indicates that AI's entry into the digital lives of Indonesians is more through learning and recreational activities than through work and productivity functions. Theoretically, this finding is consistent with the digital consumer behavior approach, which states that new technologies tend to be first adopted in contexts that provide immediate benefits, are easy to understand, and pose minimal cognitive risk (Noel, 2009). Cross-country empirical studies also show that the use of AI at the level of productivity

and decision-making usually emerges at a later stage of adoption, after users have had initial experience with and gained trust in the technology (Pena-García et al., 2020).

Third, the results of the analysis in Diagram 3 show that the main barriers to AI adoption are cognitive and literacy-related, rather than solely infrastructure limitations. The predominance of the reasons "do not know about AI" and "do not know how to use AI" confirms that most people have not yet reached the initial stage of AI literacy. This finding reinforces the AI literacy framework proposed by (Ng et al., 2021), which places basic knowledge and conceptual understanding as prerequisites before individuals are able to critically use and evaluate AI. In other words, expanding internet access without AI literacy intervention has the potential to result in shallow and uneven technology adoption.

Fourth, demographic analysis shows that younger generations and male respondents utilize AI relatively more than older age groups and women. This pattern reflects a general trend in digital technology adoption, where groups with higher levels of digital literacy and technological confidence tend to be early adopters However, if this condition is not balanced with literacy policies and programs that deliberately target older age groups and women, this gap has the potential to develop into a new form of AI-based digital divide, as warned in social studies on smart technology and knowledge access inequality (Zhang & Dafoe, 2019).

All findings in this study are based entirely on the researcher's reading of APJII 2025 secondary data, which is available in the form of percentages and tables. The researcher did not conduct inferential statistical tests, but rather rearranged the bar charts and interpreted the apparent trends descriptively and narratively. In the context of descriptive research, this approach is considered adequate to achieve the research objectives, namely to describe AI content access behavior in Indonesia and interpret its main patterns with the help of a theoretical framework of digital consumer behavior and AI literacy.

Implicitly, the synthesis of these findings suggests that the national digital transformation agenda needs to go beyond a focus on infrastructure development and connectivity. Inclusive AI development efforts must be directed at strengthening basic AI literacy, introducing the practical benefits of AI in everyday life, and developing educational strategies that are sensitive to generational and gender differences. Without such interventions, the potential of AI as a driver of productivity and welfare risks being enjoyed only by certain groups of society, while others are left behind in a digital ecosystem that is increasingly based on smart technology.

4. CONCLUSION

This study aims to describe the behavior of accessing Artificial Intelligence (AI) content in Indonesia based on secondary data from the 2025 Indonesian Internet Profile Survey compiled by APJII. The results of reading the data presented in the form of percentages and diagrams show several key findings. First, there is a clear gap between high internet penetration and relatively low AI utilization. Although the majority of the population is connected to the internet, only some respondents stated that they use AI, while the largest group does not use it at all.

Second, among the group that already uses AI, content for educational or learning purposes emerged as the most dominant category, followed by use for entertainment, while the role of AI as a virtual assistant and productivity tool is still at a lower level. Third, among non-users, the main reasons cited were not knowing what AI is, not knowing how to use it, and not feeling the need for it. This shows that the biggest barriers are cognitive and related to AI literacy, not merely technical or infrastructure constraints.

Fourth, demographic patterns show that AI usage is more concentrated among younger generations (especially Generation Z) and slightly higher among men than women. These findings indicate that there are generational and gender dimensions to AI adoption that could potentially become a new form of digital divide if not anticipated.

The novelty of this research lies in the use of a special AI module in the 2025 APJII survey to compile a descriptive map of AI content access behavior at the national level, which is then critically interpreted within the framework of digital consumer behavior and AI literacy without relying on inferential statistical analysis.

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