

EXPLORING THE MULTIGENERATIONAL INFORMATION LITERACY GAP IN DIGITAL SOCIETY

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Abstract

Digital transformation has expanded access to information across generations while simultaneously creating significant literacy gaps. This study explores the meanings, strategies, causal factors, and expectations regarding information literacy in Indonesia's digital society. Using a qualitative exploratory design, data were collected from 25 purposively selected informants representing Generation Z, Millennials, Generation X, and Baby Boomers in Bone Regency through in-depth interviews and thematic analysis. The findings reveal that younger generations (Gen Z and Millennials) are generally more active and critical in seeking, verifying, and comparing digital information, whereas older generations (Gen X and Baby Boomers) rely more on traditional sources and close social networks. Motivational barriers, cognitive limitations, and socio-cultural influences emerged as the main drivers of this literacy gap. Despite these differences, all generations expressed aspirations for strengthening inclusive literacy through training, intergenerational collaboration, and community-based discussion forums. By integrating the ACRL Information Literacy Framework, Generational Theory, and the Socio-Technical Gap Model, this study provides a comprehensive theoretical lens to explain variations in literacy practices and challenges across generations. The results contribute to theory by contextualizing multigenerational digital literacy within semi-urban Indonesian society, and to practice by offering actionable recommendations for literacy training programs, intergenerational mentoring, and policy interventions that foster inclusive and sustainable information ecosystems. These insights underscore the urgency of adaptive, participatory, and culturally responsive strategies to bridge the gap and build societal resilience in the face of accelerating digital information flows

Keywords: information literacy; multigeneration; literacy gap; digital divide; digital society; Indonesia

INTRODUCTION

Digital transformation has brought about significant changes in the way people obtain, process, and distribute information in various aspects of life (Islam & Bhuiyan, 2022; Mergel et al., 2019). Easier access through the internet and digital devices has opened up tremendous opportunities for individuals across generations to obtain the information they need (A. Afzal et al., 2023; Botelho, 2021). However, the reality on the ground shows that not all generations can adapt equally to these developments. Information literacy—which includes the ability to recognize needs, access, evaluate, and use information effectively—remains unevenly distributed across different age groups (Dumitru et al., 2022; Park et al., 2021; Taylor & Jaeger, 2021). Generation Z and millennials, for example, have grown up in a digital ecosystem that makes them more adaptable to technology. In contrast, older generations, such as Generation X and Baby Boomers, often face barriers to accessing and comprehending digital information (Livingstone & Helsper, 2007; Robinson et al., 2020).

The Global Education Monitoring Report (2023) emphasizes that the digital divide today is not merely a matter of physical access to devices but also encompasses cognitive and critical skills in managing and interpreting information. Data from the National Socio-Economic Survey (Badan Pusat Statistik, 2022) highlight this gap: the 15–24 age group has an internet usage rate of 90.17%, while those over 50 years old have a rate of only around 28.6%. Such information literacy gaps between generations not only trigger knowledge inequality but also increase vulnerability to disinformation, hoaxes, and social exclusion—especially amid the flood of information that is not always accurate and neutral (E. J. Helsper & Van Deursen, 2017; Van Dijk, 2020).

In Indonesia, literature on intergenerational information literacy remains limited, primarily focusing on the digital behavior of teenagers or college students (Irwanto et al., 2025; Jati, 2024; Kuputri, 2020; Sugeng et al., 2022; Windarsari, 2025). Very few studies systematically examine the differences in patterns, strategies, and challenges between age groups in responding to the flow of digital information in a local context. However, a deep understanding of the dynamics of multigenerational information literacy is crucial for addressing digital participation gaps and building an inclusive society in the digital transformation era. The research question of this study is: What are the levels of information literacy understanding and behavior across generations in a digital society, and what factors contribute to information literacy gaps among different age groups?

To answer this question, the study integrates three theoretical frameworks that collectively frame the analysis. First, the Information Literacy Framework (Association of College and Research Libraries/ACRL, 2016) positions information literacy beyond technical competence, emphasizing authority, information creation, and social context. Second, Generational Theory (Strauss & Howe, 1991) explains how generational experiences, values, and preferences shape information-seeking patterns and interpretations. Third, the Socio-Technical Gap Model (Ackerman, 2000; Lombardi, 2023) highlights tensions between rapid technological advancements and varying socio-cognitive readiness, often producing disparities in digital participation. By aligning these frameworks, the study provides a conceptual lens that links literacy practices, generational experiences, and socio-technical dynamics to systematically address the research problem.

State-of-the-art studies on information literacy and the digital divide have primarily focused on a single age group, access-related factors, or macro-level infrastructure (Colasante

et al., 2022; Gumati, 2024; E. J. Helsper & Van Deursen, 2017; Millard, 2023; Mubarak & Suomi, 2022; Oh et al., 2021). Few have delved deeply into the generational variations of meaning-making, strategies, and experiences, particularly in Indonesia's semi-urban communities. Thus, by explicitly integrating these frameworks, this research aims to advance both theoretical and empirical understanding of the multigenerational information literacy gap, while also offering contextually grounded insights for fostering inclusive digital participation.

Multigenerational information literacy gap in the digital society

Literature reviews on information literacy in the digital age show a fundamental shift in understanding the concept and practice of literacy itself. No longer limited to basic reading and writing skills, information literacy now encompasses the skills of identifying needs, finding, evaluating, and using information ethically and effectively in various life contexts (Park et al., 2021; Taylor & Jaeger, 2021). The framework developed by the Association of College and Research Libraries (ACRL, 2016) even emphasizes six main principles such as "authority is constructed and contextual," "information creation as a process," and "searching as strategic exploration," which require people to be not only technically proficient but also critical and reflective in every interaction with digital information.

On the other hand, advancements in digital technology have accelerated the digital divide, which encompasses not only physical access to devices and the internet but also cognitive, social, and critical abilities in managing information flows (A. Afzal et al., 2023; Van Dijk, 2020). This divide is particularly pronounced in multigenerational societies. Generation Z and millennials, often referred to as digital natives and digital adopters (Nawaz, 2020; Wandhe, 2024), tend to be more adaptable in accessing and using technology, as well as developing more advanced information literacy strategies (Dumitru et al., 2022; Livingstone & Helsper, 2007). Meanwhile, Generation X and Baby Boomers, who primarily experienced the transition from the analog to the digital era, often face barriers to adaptation, both technical and cognitive (Choudhary et al., 2024; Spaticchia, 2024).

International and national studies confirm the existence of an information literacy gap between generations. Helsper & Van Deursen (2017) found in their research that social support and digital participation are influenced not only by economic and educational factors but also by values, collective experiences, and generational habits. Research by Livingstone & Helsper (2007) in Europe revealed that younger generations exhibit higher levels of digital inclusion in terms of access, skills, and social participation. In contrast, older generations are more vulnerable to exclusion and the risk of misinformation. Similar findings were reported by Colasante et al. (2022), who underscore the importance of emotional support and intergenerational training in reducing the digital literacy gap in modern society.

In Indonesia, the multigenerational information literacy gap has begun to receive attention in recent years (Irwanto et al., 2025; Jati, 2024; Kuputri, 2020; Sugeng et al., 2022; Windarsari, 2025), but research explicitly examining differences in perceptions, experiences, and strategies among age groups remains limited. Most literature still focuses on digital literacy among adolescents and university students (Nawaf et al., 2023; Yunitasari & Prasetya, 2022). Helsper (2021) highlights that in developing societies, digital inequality is not only rooted in economic aspects but also in social and cultural dimensions, family roles, and traditional values that shape individuals' attitudes toward technology. Magliocca et al. (2024) emphasize the importance of a socio-technical approach to understanding digital inequality, as technological

infrastructure often outpaces social, cultural, and cognitive readiness—particularly among older generations.

Generational Theory, developed by Strauss & Howe (1991), posits that each generational group is shaped by distinct historical, economic, and social experiences, leading to unique patterns of adaptation and interpretations of information literacy. For example, Generation Z tends to be more exploratory and flexible in their approach to seeking information. At the same time, Generation X and Baby Boomers are more cautious, prioritize authoritative sources, and often require more time to adapt to new technologies (Dumitru et al., 2022; Lombardi, 2023). The Socio-Technical Gap Model, developed by Ackerman (2000) and further enriched by Lombardi (2023), highlights the gap between the pace of technological innovation and social-cognitive readiness, which can widen the participation and literacy divide within multigenerational communities.

Thus, This study aims to address the integration of the Information Literacy Framework, Generational Theory, and the Socio-Technical Gap Model to provide a more comprehensive and contextual understanding of multigenerational information literacy gaps.

RESEARCH METHOD

This study applied a qualitative exploratory design to capture in-depth perceptions and experiences of multiple generations in dealing with digital information. This approach was chosen because it allows exploration of meanings, strategies, and socio-cultural contexts that cannot be fully revealed through quantitative methods (Creswell & Creswell, 2018).

A total of 25 informants were recruited through purposive sampling, representing four generations: Generation Z (7 participants), Millennials (7), Generation X (6), and Baby Boomers (5). Participants varied in gender, occupation, and educational background to reflect diversity in socio-demographic profiles. Each participant was interviewed once in depth, with interviews lasting 45–75 minutes. The sample size was deemed sufficient for generating rich data while maintaining feasibility for thematic analysis. Saturation was reached when no new codes or categories emerged during the final three interviews, indicating redundancy of themes across generations.

Data were gathered through semi-structured interviews guided by open-ended questions on perceptions of information literacy, challenges, strategies, and expectations. Interviews were conducted in participants' preferred language, recorded with consent, and transcribed verbatim. Field notes and reflexive journals were maintained to capture contextual observations and researcher reflections. The interview process was conducted both in person and online, adjusting to the conditions and comfort of the informants. All interviews were recorded and transcribed verbatim to maintain data accuracy.

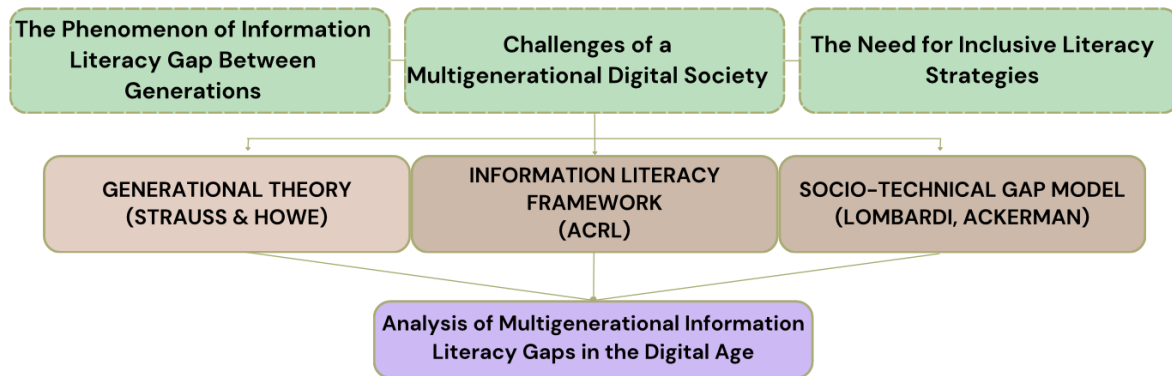


Figure 1. The three main theoretical frameworks used

A thematic analysis approach was employed, moving through coding, categorization, and theme development by Braun & Clarke (2006, 2019). Two researchers independently coded 20% of the transcripts, then compared results to establish inter-coder agreement (>85% consistency). Discrepancies were discussed until consensus was reached, and a coding manual was refined for the remaining data. Reflexivity was enhanced by maintaining analytic memos and peer debriefing with colleagues, ensuring transparency and minimizing bias. NVivo software was used to manage codes and themes systematically. With its exploratory methodology and multi-layered validation, this study is expected to provide a comprehensive picture of the information literacy gap across generations, as well as theoretical and practical contributions to the development of more inclusive and equitable information literacy strategies in the digital age.

RESULT AND DISCUSSION

Theme 1: The Meaning and Interpretation of Information Literacy

Definition of Information Literacy According to Generations

Each generation interprets information literacy differently, depending on their experiences and level of adaptation to technology. Generation Z and Millennials, who have been familiar with the digital ecosystem from the start, tend to associate information literacy with the ability to search for, verify, and compare information before trusting or sharing it.

In contrast, Generation X and Baby Boomers tend to emphasize caution and rely on traditional sources of authority, as well as their immediate social circle. These differences in perspective are reflected in the following statements from several informants:

"For me, information literacy is the ability to find out the truth about information before believing it." (RZ, 21 years old – Gen Z)

"Information literacy means being diligent in comparing news from multiple sources before sharing it with friends or family." (RL, 24 years old – Millennial)

"I usually ask my children or neighbors if there's any confusing information on my phone." (PD, 49 years old – Gen X)

"Information needs to be filtered; don't just believe everything. I trust news from newspapers and TV more." (NR, 60 years old – Baby Boomer)

"In today's world, we have to be smart about choosing which news is worth believing because there's so much fake information out there." (MA, 25 years old – Millennial)

The quotes above emphasize that younger generations place greater emphasis on actively seeking and verifying information, while older generations still prioritize traditionally trusted sources and trust in their immediate social environment. This indicates that while information literacy is considered important by all generations, the strategies and orientation in its application are still greatly influenced by age, habits, and exposure to technology.

Authority Sources and Information Validation

In addition to definitions, the sources of authority or primary references used to validate information also show different patterns across generations. Younger generations tend to rely on digital media and search engines for fact-checking. In comparison, older generations place more trust in mainstream media or figures in their social environment, such as family members or community leaders. The following interview excerpts illustrate these diverse approaches:

"If there's a viral news story on TikTok, I usually recheck it on Google and mainstream media." (RR, 19 years old – Gen Z)

"I only believe information if it's been shown on national TV." (FA, 31 years old – Millennial)

"I usually trust information shared in family groups, especially if it's shared by my children or nieces and nephews." (SJ, 52 years old – Gen X)

"I like to ask my religious teacher or neighborhood leader if there's any strange news on my phone." (NU, 67 years old – Baby Boomer)

"I used to trust news from newspapers, but now I often ask my grandchildren about information from the internet." (SR, 60 years old – Baby Boomer)

This data shows a shift in authority sources from institutional to digital networks among younger generations and from social communities to family among older generations. The choice of validation sources highlights how values of trust, habits, and social relationships play a significant role in shaping information literacy patterns across generations.

Theme 2: Strategies and Responses to Misleading Information

Initial Responses to Questionable Information

One of the primary challenges in the digital age is the overwhelming amount of information, much of which is inaccurate or unreliable. When faced with questionable information, each generation has a different initial response. Younger generations tend to quickly verify information digitally, while older generations are more cautious or even ignore information they consider unimportant. These varied responses are evident in the following statements from informants:

"If I see strange information on social media, I immediately check its accuracy on Google or major news portals." (NT, 20 years old – Gen Z)

"I usually ask my college friends first, in case they already know if the information is true or not." (AF, 22 years old – Gen Z)

"Sometimes, if the information is unclear, I just ignore it; I'm too lazy to look into it further." (AD, 47 years old – Gen X)

"Often, I just save the information on my phone and ask my children at home later when I have time." (SS, 62 years old – Baby Boomer)

"If the information is causing a stir in the family group, I usually ask my neighbors or younger relatives." (SJ, 52 years old – Gen X)

From the quotes above, it is evident that younger generations are more reactive and digitally savvy in verifying information, while older generations rely more on time,

consideration, and their closest social networks. Initial responses to questionable information are significantly influenced by the ease of access to technology and communication habits in their daily environment.

Verification Strategies and Reference Sources

When verifying received information, informants from different generations apply different strategies. Generation Z and Millennials tend to use search engines' official websites and compare various digital sources. In contrast, Generation X and Baby Boomers often rely on references from people they consider credible in their social environment. This is reflected in the following scripts:

"I always check information on government websites or official social media accounts before believing it." (LU, 24 years old – Millennial)

"I usually compare news from several portals, and if they differ, I look for the most updated one." (ME, 27 years old – Millennial)

"If there is news on WhatsApp, I usually send it to my family group first and ask my nephew who is more tech-savvy." (PD, 49 years old – Gen X)

"I ask my office friends or relatives who are considered tech-savvy." (SI, 52 years old – Gen X)

"To ensure the news is accurate, I usually trust it if it's confirmed on TV or mentioned by a religious leader at a gathering." (NA, 67 years old – Baby Boomer)

These quotes highlight that verification strategies are not just about access to digital sources but are also heavily influenced by trust in certain figures or institutions. Younger generations rely more on technology and digital skills, while older generations remain loyal to the credibility of traditional media, family, or community leaders.

Theme 3: Factors Causing the Information Literacy Gap

Motivational and Cognitive Barriers

The factors causing differences in information literacy between generations are not only related to access to technology but also to motivation and mindset. Many informants cited laziness, time constraints, or a lack of interest in reading as reasons for low information literacy, particularly among older generations. Before interpreting, here are some interview excerpts that represent this theme:

"Sometimes I get tired just thinking about reading long articles, so I tend to believe the summaries in WhatsApp groups." (PI, 49 years old – Gen X)

"Many older people are reluctant to learn how to use cell phones because they are afraid of pressing the wrong buttons or being considered technologically illiterate." (RA, 62 years old – Baby Boomer)

"I sometimes don't feel like checking further information, especially if I already trust the person who provided it." (ME, 27 years old – Millennial)

"If the information is complicated, I just ask my neighbors or leave it be." (NA, 67 years old – Baby Boomer)

"Most of the time, my friends just want quick and short information, regardless of whether it's valid or not." (RC, 24 years old – Millennial)

The data above indicate that motivational barriers—such as laziness, fear of being perceived as technologically illiterate, or reluctance to read lengthy texts—are significant factors contributing to the information literacy gap. These cognitive challenges underscore the

need for engaging and friendly educational approaches to foster interest and build the courage to learn across generations.

The Influence of Social and Cultural Environment

In addition to individual motivation, social and cultural environments have a significant influence on information consumption patterns and dissemination. Social pressure, trust in specific figures, and a “follow the crowd” culture often explain why people accept certain information without verifying it. The following scripts illustrate this:

“If a religious leader or community figure shares the news, it’s usually trusted right away because they’re seen as more knowledgeable.” (SJ, 52 years old – Gen X)

“In my village, information shared by the village chief is usually taken as fact.” (NU, 67 years old – Baby Boomer)

“The campus environment doesn’t always encourage critical thinking; sometimes people just follow the crowd.” (MA, 27 years old – Millennial)

“In family groups, it’s often uncomfortable to disagree, so I just stay silent even if I’m unsure.” (RL, 24 years old – Millennial)

“There’s a culture of hesitation to ask questions or criticize, especially toward older people.” (FA, 31 years old – Millennial)

These quotes highlight that social norms, hierarchy, and a culture of hesitation pose significant barriers to building healthy information literacy. Environments that lack support for open discussion and critical reflection widen the generational gap and hinder the adoption of better literacy behaviors.

Theme 4: Hopes and Solutions for Strengthening Multigenerational Information Literacy

Both young and old generations have hopes for inclusive, practical, and enjoyable educational programs or training. They recognize the importance of cross-generational collaboration, enabling all parties to learn from one another and support each other. This is reflected in the following quotes:

“There should be training for parents, but it shouldn’t be rigid; it should be relaxed so that people aren’t afraid of making mistakes.” (SR, 62 years old – Baby Boomer)

“Universities or schools should invite both young people and parents together so they can discuss things.” (MA, 27 years old – Millennial)

“I want there to be a forum in the village so we can ask directly if there’s any strange information.” (NU, 67 years old – Baby Boomer)

“There should be regular digital workshops in the neighborhood (RT or RW) so everyone can stay updated.” (PD, 49 years old – Gen X)

“If possible, there should be a simple app specifically for parents so they don’t get confused using it.” (RL, 24 years old – Millennial)

These hopes underscore the need for inclusive and accessible educational design and public services that foster intergenerational dialogue. Collaboration between younger generations who are more digitally savvy and older generations with rich experience is key to building fair, adaptive, and sustainable information literacy.

The discussion of the research findings highlights the complexity and dynamics of the information literacy gap across generations in digital societies, particularly in Indonesian communities. The analysis focuses on four main themes: the meaning of information literacy across generations, strategies and responses to misleading information, factors contributing to

the literacy gap, and cross-generational expectations and solutions. Overall, the findings suggest that differences in age, digital experience, habits, and social values lead to significant variations in information literacy abilities, attitudes, and practices.

First, regarding the meaning and interpretation of information literacy, the results confirm clear differences between younger generations (Gen Z and Millennials) and older generations (Gen X and Baby Boomers). Younger generations define information literacy as the proactive ability to seek, verify, and compare various sources before trusting or sharing information. Narratives such as “the ability to find out the truth about information before blindly believing it” and “diligently comparing news from multiple sources before sharing” indicate the internalization of active information literacy practices aligned with the ACRL's Information Literacy Framework (2016). This finding aligns with the results of Sugeng et al. (2022) and Windarsari (2025), who noted that digital natives are more likely to adopt literacy strategies based on exploration and critical verification due to their consistent exposure to the digital ecosystem.

Conversely, Generation X and Baby Boomers emphasize caution and rely on traditional sources of authority, such as newspapers, TV, or their immediate social environment. “I trust news from newspapers and TV” or, “I ask my children or neighbors if there is confusing information on my phone” are examples of reliance on social authority and trusted traditional media, as also mentioned by Livingstone & Helsper (2007) that older age groups tend to seek security through figures considered experts or trusted in their environment. This pattern reinforces the argument of the Socio-Technical Gap Model (Ackerman, 2000; Lombardi, 2023), which states that the speed of technology adoption does not align with the social and cultural readiness of a multigenerational society.

The subtheme regarding sources of authority and information validation reveals a shift in authority from large institutions to digital networks among the young and from social communities to family or community leaders among the older generation. While Gen Z and Millennials tend to rely on Google, mainstream media, or official social media accounts (“check again on Google and mainstream media,” “I only believe it if it's on national TV”), Gen X and Baby Boomers remain loyal to family or social figures for validation (“I trust what my family group sends me,” “I like to get information from my religious teacher or neighborhood leader”). These findings are supported by the studies of Choudhary et al. (2024) and Magliocca et al. (2024), which emphasize that the values, habits, and collective experiences of each generation significantly influence trust in sources. Additionally, Botelho (2021) highlights the importance of social networks (social trust) in the digital adaptation process, particularly for generations that adopted technology later.

In the second theme, strategies and responses to misleading information, it was observed that initial responses and verification patterns varied greatly between generations. Gen Z and Millennials generally showed quick reactions and digital savvy: “immediately check the truth on Google or major news portals,” “ask college friends first,” or “check on government websites or official social media accounts.” They prioritize digital literacy based on data confirmation, in line with the concept of “searching as strategic exploration” (ACRL, 2016) and the findings of Afzal (2019) and Wandhe (2024), which emphasize the ability of digital natives to use multi-platform fact-checking.

In contrast, Generation X and Baby Boomers tend to take more time, consider the credibility of sources based on social relationships, or even ignore information deemed unimportant (“just ignore it,” “save it on my phone, I'll ask the kids at home later,” “I'll believe it

if it's confirmed on TV or by the imam at the mosque"). This aligns with Van Dijk's (2020) argument about the "secondary digital divide," which is not merely about access to technology but also different motivations, habits, and cognitive strategies. This finding is supported by a study by Choudhary et al. (2024) and Spaticchia (2024), which found that older age groups tend to prioritize advice from their inner circle over independent digital verification due to limited self-confidence and limited access to digital devices.

Interestingly, interview quotes in this sub-theme also show that reference sources (both digital and social) are highly dependent on who is considered credible. RL (24 years old) continuously checks the government website, PD (49 years old) asks their tech-savvy nephew, and NU (67 years old) trusts religious leaders or confirms information through TV. This reinforces the relevance of Generational Theory (Strauss & Howe, 1991), which states that differences in collective experiences shape distinct trust orientations across generations.

The third theme, related to the factors causing the information literacy gap, shows that differences in literacy are not merely a matter of access but also involve motivation and cognition. Many informants especially from older groups cited laziness, time constraints, or fear of making mistakes as causes of low information literacy ("too lazy to learn how to use a cell phone because I'm afraid of pressing the wrong button," "I just want quick and brief information, I don't care if it's valid or not"). On the other hand, Gen Z/Millennials also acknowledge that "sometimes I'm too lazy to check further information, especially if I already trust the source." This reinforces the findings of Gumati (2024) and Helsper & Van Deursen (2017) on the importance of motivational approaches and interactive training rather than merely providing infrastructure or access to technology.

The sub-theme of the influence of social and cultural environment is also very evident. Shyness, social hierarchy, and excessive trust in certain figures often make individuals reluctant to verify or criticize information. "If the person sharing the news is a religious leader or a community figure, they're usually trusted right away," "in family groups, it's often uncomfortable to disagree, so I just stay quiet even if I'm unsure," "there's a culture of shyness when it comes to asking questions or criticizing, especially toward older people." This situation is reinforced by research by Nawaf et al. (2023) and Robinson et al. (2020), which emphasizes that collective values, paternalistic culture, and local social norms can strengthen resistance to changes in critical literacy behavior. An environment that does not support open discussion and critical reflection ultimately widens the generational gap and hinders progress toward improved literacy.

In the fourth theme, namely hopes and solutions for strengthening multigenerational information literacy, informants from all age groups expressed the need for inclusive, practical, and enjoyable literacy training. They hoped for special training for parents that is not rigid and easy to follow, as well as village or neighborhood discussion forums, digital workshops, and elderly-friendly applications. There was also a hope that universities and schools would invite young people and parents to discuss with each other. An important implication of these findings is the urgency of designing contextual and participatory education, as recommended by Colasante et al. (2022), Dumitru et al. (2022), and Millard (2023). Intergenerational collaboration is considered highly potential for reducing gaps, strengthening self-confidence, and fostering a mutually reinforcing learning culture.

The literature recommends that community-based literacy programs involving young people as digital mentors for older generations and vice versa foster an appreciation for the life experiences of older generations and are key to achieving an inclusive digital society (Gumati,

2024; Yunitasari & Prasetya, 2022). Additionally, family-based knowledge transfer, intergenerational dialogue, and the design of senior-friendly applications are essential priorities for policymakers and information education practitioners.

To enhance clarity, Table 1 summarizes the main generational patterns identified in this study, connecting them with previous research and theoretical frameworks.

Table 1. Generational Patterns of Information Literacy in Indonesia's Digital Society

Generation	Key Characteristics	Challenges	Strategies Used
Gen Z	Critical, adaptive, multi-platform users; strong peer influence	Distraction, information overload	Fact-checking via apps, peer group verification
Millennials	Active seekers, balance academic & personal info needs; pragmatic	Time management, selective credibility issues	Cross-check with reputable news portals, social media debates
Gen X	Prefer blended sources (digital + traditional); cautious adopters	Limited digital confidence; skepticism	Reliance on trusted networks, workplace training
Baby Boomers	Strong reliance on print & interpersonal sources; high trust in authority	Cognitive barriers, low exposure to digital tools	Consult family, use simple digital apps

This comparative synthesis shows that generational differences are not only technical but also ideological and cognitive. Younger generations frame critical literacy as a necessity for identity and participation, while older generations associate it with trust, tradition, and social authority. These differences suggest that strategies to strengthen literacy must be intergenerational and inclusive, bridging cognitive styles, technological readiness, and socio-cultural contexts. Practically, the study recommends developing intergenerational literacy programs where Gen Z and Millennials serve as peer mentors for older cohorts, integrating reflective and contextual evaluation into curricula, and fostering community-based training that combines digital tools with traditional communication patterns.

CONCLUSION

This study highlights that information literacy gaps in Indonesia are shaped not only by access but also by generational differences in motivation, cognition, and socio-cultural practices. Younger generations (Gen Z and Millennials) demonstrate greater adaptability and critical use of digital platforms, while older generations (Gen X and Baby Boomers) rely more on traditional networks and face barriers in digital confidence. These differences affirm the value of integrating the ACRL Information Literacy Framework, Generational Theory, and the Socio-Technical Gap Model to explain literacy practices within Indonesia's semi-urban society.

The findings emphasize the importance of intergenerational literacy strategies, such as peer mentoring, inclusive training programs, and community-based workshops that bridge generational strengths. Universities and community organizations can embed these practices into curricula and outreach initiatives, fostering collaboration between younger and older cohorts.

At a broader level, the results can inform national digital literacy policies. By recognizing generational diversity, policymakers can design targeted interventions—for example, integrating critical literacy modules into school curricula for younger cohorts, while providing

simplified digital tools and training for older adults. Such differentiated approaches would ensure that digital inclusion policies are more effective and equitable.

This study was limited to one regency, with a modest number of participants and reliance on self-reported data. These factors may limit generalizability. Future studies could expand across regions, adopt mixed methods, and explore longitudinal changes to better capture evolving generational practices.

In sum, the study contributes to theory by contextualizing multigenerational information literacy within Indonesia, and to practice by offering actionable pathways for educators, communities, and policymakers to design inclusive and adaptive literacy interventions. Bridging these gaps is critical to building societal resilience in the era of accelerating digital transformation

SUGGESTION

Based on the research findings and analysis presented, several suggestions can be made for future studies and the development of AI-based information practices. First, future research could expand its scope by involving other generations (such as Millennials and Generation Alpha) to compare cross-generational patterns of information behavior within the digital ecosystem. Second, educational institutions and libraries should design digital literacy programs that emphasize algorithmic awareness, enabling Gen Z not only to be passive consumers of AI-personalized information but also to actively control, select, and critically evaluate it. Third, governments and technology developers should prioritize algorithmic transparency and ethics to prevent the formation of filter bubbles that limit information diversity. Lastly, collaboration among academics, librarians, and AI developers should be strengthened to design recommendation systems that are not only efficient and relevant but also fair, inclusive, and supportive of reflective and responsible information behavior.

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REFERENCES

- Ackerman, M. S. (2000). The intellectual challenge of CSCW: the gap between social requirements and technical feasibility. *Human-Computer Interaction*, 15(2-3), 179-203.
- ACRL. (2016, January 11). Framework for Information Literacy for Higher Education. Association of College and Research Libraries. <https://www.ala.org/acrl/standards/ilframework>
- Afzal, A., Khan, S., Daud, S., Ahmad, Z., & Butt, A. (2023). Addressing the digital divide: Access and use of technology in education. *Journal of Social Sciences Review*, 3(2), 883-895.
- Afzal, N. (2019). A study on vocabulary-learning problems encountered by BA English majors at the university level of education. *Arab World English Journal (AWEJ)* Volume, 10.

- Badan Pusat Statistik. (2022). Indeks Pembangunan Teknologi Informasi dan Komunikasi (IP-TIK) 2022. BPS RI. <https://www.bps.go.id/publication.html>
- Botelho, F. H. F. (2021). Accessibility to digital technology: Virtual barriers, real opportunities. *Assistive Technology*, 33(sup1), 27–34.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597.
- Choudhary, R., Shaik, Y. A., Yadav, P., & Rashid, A. (2024). Generational differences in technology behavior: A systematic literature review. *Journal of Infrastructure, Policy and Development*, 8(9), 6755.
- Colasante, T., Lin, L., De France, K., & Hollenstein, T. (2022). Any time and place? Digital emotional support for digital natives. *American Psychologist*, 77(2), 186.
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th Editio). SAGE Publications.
- Dumitru, E.-A., Ivan, L., & Loos, E. (2022). A generational approach to fight fake news: In search of effective media literacy training and interventions. *International Conference on Human-Computer Interaction*, 291–310.
- Global Education Monitoring Report Team. (2023). *Global Education Monitoring Report 2023: Technology in education: A tool on whose terms? GEM Report UNESCO*. <https://doi.org/10.54676/UZQV8501>
- Gumati, M. R. (2024). Digital Sovereignty and State Power: Indonesia's Approach to Digital Platforms Regulation. *JISPO Jurnal Ilmu Sosial Dan Ilmu Politik*, 14(1), 99–126.
- Helsper, E. (2021). The digital disconnect: The social causes and consequences of digital inequalities.
- Helsper, E. J., & Van Deursen, A. J. A. M. (2017). Do the rich get digitally richer? Quantity and quality of support for digital engagement. *Information, Communication & Society*, 20(5), 700–714.
- Irwanto, I., Bahfiarti, T., Unde, A. A., & Sonni, A. F. (2025). Information disorder's impact on adolescents: publication trends and recommendations. *Frontiers in Communication*, 10, 1495536.
- Islam, M. A., & Bhuiyan, M. R. I. (2022). Digital transformation and society. Available at SSRN 4604376.
- Jati, W. R. (2024). From Millennial to Generation Z: The State of Digital Literacy among Youths Dealing with Disinformation During Elections. *Jurnal Komunikasi Indonesia*, 13(1), 19.
- Kuputri, N. M. (2020). Digital Divide: A Critical Approach to Digital Literacy in 'Making Indonesia 4.0.' The 2nd Tarumanagara International Conference on the Applications of Social Sciences and Humanities (TICASH 2020), 1–6.
- Livingstone, S., & Helsper, E. (2007). Gradations in digital inclusion: Children, young people and the digital divide. *New Media & Society*, 9(4), 671–696.
- Lombardi, M. (2023). Digital economy and digital divide. In *Global handbook of inequality* (pp. 1–27). Springer.
- Magliocca, P., Faggioni, F., Muto, V., & Caputo, F. (2024). Technology readiness and digital gap for depicting socio-economic dynamics in society 5.0: a meso-level observation. *The Journal of Technology Transfer*, 1–17.
- Mergel, I., Edelmann, N., & Haug, N. (2019). Defining digital transformation: Results from expert

- interviews. *Government Information Quarterly*, 36(4), 101385.
- Millard, J. (2023). *Impact of digital transformation on public governance*. European Union, Luxembourg.
- Mubarak, F., & Suomi, R. (2022). Elderly forgotten? Digital exclusion in the information age and the rising grey digital divide. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, 59, 00469580221096272.
- Nawaf, A., Azura, S., Gultom, S. F., Afriansyah, W., & Putra, A. D. (2023). Analisis literasi digital dalam penggunaan media sosial di kalangan remaja Desa Payung Kec. Payung Kab. Karo. *Journal Of Human And Education (JAHE)*, 3(2), 337–343.
- Nawaz, I. Y. (2020). Characteristics of millennials and technology adoption in the digital age. In *Handbook of research on innovations in technology and marketing for the connected consumer* (pp. 241–262). IGI Global Scientific Publishing.
- Oh, S. S., Kim, K.-A., Kim, M., Oh, J., Chu, S. H., & Choi, J. (2021). Measurement of digital literacy among older adults: systematic review. *Journal of Medical Internet Research*, 23(2), e26145.
- Park, H., Kim, H. S., & Park, H. W. (2021). A scientometric study of digital literacy, ICT literacy, information literacy, and media literacy. *J. Data Inf. Sci.*, 6(2), 116–138.
- Robinson, L., Schulz, J., Dunn, H. S., Casilli, A. A., Tubaro, P., Carvath, R., Chen, W., Wiest, J. B., Dodel, M., & Stern, M. J. (2020). Digital inequalities 3.0: Emergent inequalities in the information age. *First Monday*, 25(7).
- Spaticchia, U. (2024). Generational Transformations and Digital Media: continuity and change. *Addiction & Social Media Communication*, 1(2).
- Strauss, W., & Howe, N. (1991). *Generations: The history of America's future, 1584 to 2069*. William Morrow and Company. Inc., New York.
- Sugeng, S., Fitria, A., & Rohman, A. N. R. A. N. (2022). Promoting digital literacy for the prevention of risk behavior in social media for adolescents. *Jurnal Keamanan Nasional*, 8(1).
- Taylor, N. G., & Jaeger, P. T. (2021). *Foundations of information literacy*. American Library Association.
- Van Dijk, J. (2020). *The Digital Divide*. Cambridge: Polity Press. Communication, 2020.
- Wandhe, D. P. (2024). The new generation: Understanding millennials and Gen Z. Available at SSRN 4716585.
- Windarsari, W. R. (2025). Teenagers' Interest In Property Ownership In Digital Age. *Management, Economics, Trade, and Accounting Journal (META-JOURNAL)*, 2(4), 139–144.
- Yunitasari, Y., & Prasetya, H. (2022). Literasi Media Digital pada Remaja Ditengah Pesatnya Perkembangan Media Sosial. *Jurnal Dinamika Ilmu Komunikasi*, 8(1), 12–25.