

Strengthening Students' Mental Health through Responsible AI Literacy: The AIMAH Program at Muthahhari Foundation

Iis Rosilah*

Dima Noor Ziehad

Nurin Salsabila

Ayi M Sirojudin

Albi Baihaqi

Manajemen Pendidikan Islam, UIN Sunan Gunung Djati Bandung, Indonesia

ABSTRACT

This study aims to explore how responsible artificial intelligence (AI) literacy programs contribute to strengthening students' mental health. Using a qualitative research method with a case study approach at Muthahhari Foundation, data were collected through in-depth interviews and participatory observation with students from various grade levels, starting from the first year of elementary school. The findings indicate that students are introduced from an early age to the smart use of mobile devices, basic coding, and the creative and productive utilization of AI-based applications. In parallel, the school also implements mental health reinforcement activities such as yoga, regular sports, outdoor learning, and "fun student hours" that support emotional balance and social interaction. The synergy between responsible AI literacy and mental health programs forms a holistic educational approach that prepares students to be not only technologically competent but also mentally resilient in facing the challenges of the digital era.

Keyword : Artificial Intelligence Literacy, Mental Health, Holistic Education, Digital Era, Student Resilience

Introduction

Over the past decade, adoption of Artificial Intelligence (AI) within educational contexts has grown rapidly, presenting opportunities to enhance the effectiveness, personalization, and flexibility of learning processes. For example, the integration of AI into adaptive learning, intelligent tutoring systems, and automated assessment is believed to support the improvement of students' digital literacy and critical thinking skills (Sinaga, 2025). However, this rapid adoption also presents new challenges. Without sufficient understanding and AI literacy, students including those at the secondary level are at risk of becoming passive, dependent on AI-generated outputs, and less able to develop reflective thinking skills (Zaini et al., 2025). This issue forms an

* Corresponding author: Iis Rosilah

important rationale for responsible AI literacy initiatives such as the AIMAH program, which seeks to bridge digital transformation while maintaining students' cognitive maturity and ethical awareness.

Furthermore, although AI offers pedagogical benefits, the psychosocial impacts of its integration have begun to surface. Recent studies indicate that the use of AI in educational settings can affect users' mental well-being. For instance, research involving university students shows that AI and social media have an impact on mental well-being and their perceptions of academic workload. While AI can support learning, its excessive use or use without adequate literacy may lead to stress, social pressure, or reduced learning autonomy (Suhaoping & Patricia, 2025). Furthermore, a 2025 study indicates that the rapid integration of AI into educational systems may give rise to a phenomenon known as *educational anxiety*, which refers to anxiety associated with shifting roles, heightened demands for adaptation, and digital pressures that pose a tangible risk to the psychological well-being of education stakeholders (Zhang & Cao, 2025). These facts indicate that the efficiency and convenience offered by AI do not automatically guarantee mental well-being; without adequate literacy and regulation, AI can instead become a source of anxiety and psychological dysfunction within the school environment.

Considering both the opportunities and risks, it is essential for educational institutions particularly those that prioritize holistic student development, such as your foundation to design AI literacy programs that go beyond technical skills and include ethical awareness, critical reflection, and emotional management. Programs such as the AIMAH initiative have the potential to address these needs by strengthening students' AI literacy so they can use technology responsibly, while also supporting mental health and fostering independent learning. Thus, integrating AI literacy becomes an important effort to safeguard students' well-being, character, and psychological resilience in the digital era.

Literature Review

The rapid advancement of Artificial Intelligence (AI)-based technologies in the field of education has created an urgent need to develop AI literacy from the elementary to secondary levels (K-12). A systematic review of 179 documents found that AI literacy approaches in K-12 fall into two major categories: those implemented as learning experiences and those grounded in theoretical perspectives (Otero et al., 2023). AI literacy in this context involves not only the technical ability to operate AI-based tools, but also the cognitive and pedagogical dimensions required to understand the social and ethical consequences of AI use (Zhang & Cao, 2025). Thus, AI literacy should not be viewed merely as a digital skill, but rather as a critical competency that equips students to engage with AI consciously and responsibly. In line with this view, recent literature highlights the need to conceptualize AI literacy as a multidimensional construct. An integrative review published in 2025 examining AI literacy studies since 2020 identified three primary conceptual approaches: literacy as a function (functional), critical literacy, and literacy that provides indirect benefits (indirectly beneficial) (Gu & Ericson, 2025). This approach reflects the idea that AI literacy is not only about *how to use AI*, but also about *how to evaluate, assess, and understand its impacts*—an essential aspect of preparing students to make informed and ethical decisions in a digital environment. This multidimensional framework is particularly relevant to efforts to design an AI literacy program that goes beyond technical operation and equips students with critical awareness and ethical grounding.

In addition, research indicates that AI literacy must be accompanied by self-regulation skills in the context of learning with AI. A recent study examining the interaction between AI literacy and self-regulated learning (SRL) found that only students who maintain a balance between SRL and AI literacy are able to use AI effectively. Those who are “too AI-inclined” risk becoming overly dependent on AI, while

students who possess SRL without sufficient AI literacy may struggle to leverage the full potential of AI (Long et al., 2025). These findings underscore the importance of synchronizing AI literacy with self-regulatory capacities when designing educational interventions, ensuring that the use of AI supports healthy learning practices rather than creating dependence or disorientation among students.

On the other hand, the digital era presents serious challenges to adolescents' mental health. Numerous studies indicate that maladaptive forms of social-digital interaction such as excessive social media use, exposure to harmful content, or online social comparison are correlated with increased risks of stress, anxiety, depression, and social isolation (Nasution et al., 2025). The literature suggests that this social-digital landscape requires adolescents to possess strong digital and critical literacies so they can filter information, manage expectations, and safeguard their psychological well-being (Shofiyah & Ulum, 2025). In this context, both digital and AI literacy can function as protective factors against psychosocial pressures in the technological era by providing students with the cognitive and emotional tools needed to understand, evaluate, and regulate their digital interactions.

Finally, integrating responsible AI literacy with mental health awareness emerges as a promising intervention approach. Enhancing AI literacy through technical, critical, regulatory, and ethical components equips students with the capacity to engage with technology in a healthy and reflective manner. This combination enables them not only to use AI for learning purposes but also to evaluate its psychological impacts, protect their privacy, and manage digital pressures. Therefore, programs such as your AIMAH initiative have the potential to bridge these two essential domains technological literacy and student mental health ensuring that learners become not only digitally competent but also psychologically resilient.

Methods

This study employs a qualitative approach to gain an in-depth understanding of Strengthening Students' Mental Health through Responsible AI Literacy: The AIMAH Program at the Muthahhari Foundation. This approach was chosen due to the complexity and context-dependent nature of the research problem, which requires a comprehensive exploration of the experiences, perceptions, and constructed meanings of stakeholders within the educational setting.

Data collection was conducted through two primary techniques: library research and in-depth interviews. The library research aimed to examine relevant theories, concepts, and previous empirical findings by utilizing scholarly literature, peer-reviewed journal articles, academic books, and official documents related to AI literacy and mental health. This process sought to construct a strong conceptual framework to guide subsequent analysis.

In addition, in-depth interviews were carried out with informants selected through purposive sampling, including ICT teachers, students, and mental health professionals. These interviews were designed to capture insights into their perspectives and strategies for integrating AI with mental health principles. A semi-structured interview guide was developed to allow flexibility in exploring emerging issues during the data collection process.

Data analysis was conducted through a process of data reduction, which involved sorting, simplifying, and focusing the information by extracting only segments relevant to the research focus. Each interview transcript was reduced to identify data supporting the core themes, while irrelevant information was excluded. The reduced data were then processed through thematic analysis to uncover patterns, relationships, and key concepts related to the balance between AI literacy and mental health.

To ensure data validity, source triangulation was employed by cross-verifying information obtained from interviews with literature sources. This strategy enhances the credibility and academic accountability of the research findings.

Through this methodological approach, the study aims to generate a comprehensive understanding of a balanced model that integrates AI literacy, mental health, and Islamic educational values. This model is expected to serve as a strategic foundation for formulating sustainable educational policies and practices in the future.

Results

Adaptation of AI Utilization in the Educational Context

Interview results with the school revealed that the Muthahhari Foundation views AI as a technology with significant potential to support personalized learning, expand access to information, and enhance teacher efficiency. However, its use must still preserve the essence of education as a human-centered relationship between teachers and students. The school has utilized various AI tools such as ChatGPT, DeepSeek, and Gemini to support writing skills, critical discussions, and idea visualization, accompanied by prompt-engineering training for teachers to better guide students in using AI wisely.

Although teachers responded positively as AI assists in designing instructional activities the school emphasizes that students must understand AI as a tool to strengthen cognitive processes rather than merely a provider of instant answers. To maintain balance between technology and human interaction, the school implements a humanistic blended-learning approach that positions AI as a learning partner while ensuring that human relationships remain at the core of the educational process. This aligns with the perspective of KH. Jalaluddin Rakhmat, who asserts that education is an inner transformation rather than a mere transfer of information.

Internalization of AI Literacy in Schools

Interview findings with two ICT teachers at the Muthahhari Foundation, Mr. Azhar and Mr. Yogi, indicate that AI literacy has been implemented progressively from the elementary to high school levels. In grades 1–2 of elementary school, students are introduced to educational game applications to learn reading, numeracy, and basic programming concepts through Scratch Junior. Students in grades 3–6 continue with digital literacy development by mastering Microsoft Office, PowerPoint, and Canva as foundational skills. At the junior high school level, instruction advances toward more complex competencies such as video editing, advanced office applications, and blog creation. Meanwhile, high school students begin learning digital form creation, the use of AI for productivity tasks, Google Machine Learning, and basic concepts of AI automation.

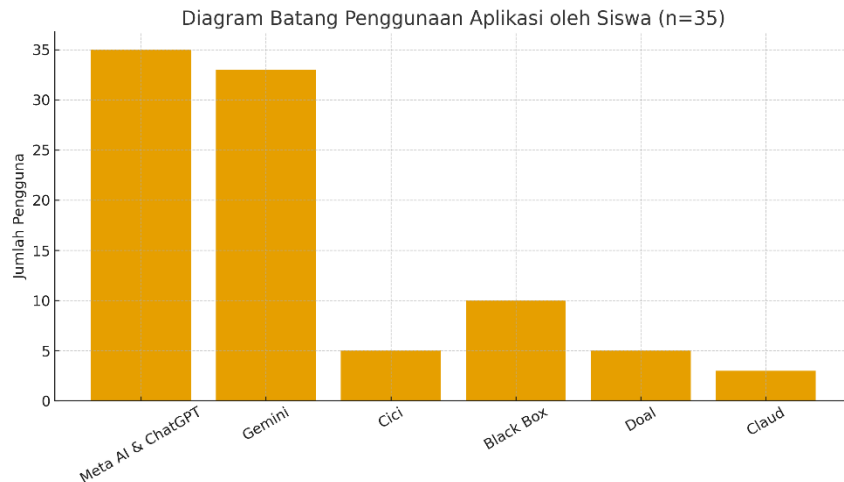
Beyond technical skills, AI literacy at the Muthahhari Foundation also emphasizes early ethical awareness. Teachers explain digital laws, codes of conduct for technology use, and the principle that AI is a tool capable of producing positive or negative outcomes depending on how it is used. This emphasis on digital responsibility and ethics forms an essential component of ICT instruction, ensuring that students are not only able to operate technology but also understand the risks and moral consequences involved in interacting with AI and other digital platforms.

Students' Understanding of AI Literacy

Interview results involving a sample of 35 students from Grade 1 of elementary school through Grade XII of high school at the Muthahhari Foundation revealed that *100% of the students are familiar with AI-based applications*. The educational games commonly used by younger students include Scratch Junior, Coloring & Fun, Math for Kids, Kahoot, Angry Birds, Craftman, Typing.com, Code.org, and Toca Boca. Through these educational games, students are able to learn while playing, enabling them to understand learning processes quickly and easily.

The AI applications used by students include Gemini, ChatGPT, Cici, Dola, Meta AI, DeepSeek, and Claude. These AI tools are utilized to search for general knowledge information, prepare materials for religious mini-lectures (*kultum*), find answers to various questions, look up recipes, seek life tips, and other purposes.

In using AI to obtain answers or specific information, students reportedly remain critical, conducting cross-checks on AI-generated responses and comparing them with information from other AI applications. Some students also enjoy interacting or “sharing stories” with AI; however, this is done merely for entertainment or casual amusement.



Based on a survey of 35 students, the chart shows that Meta AI and ChatGPT are the most widely used applications, utilized by all respondents. Gemini follows closely with 33 users, indicating that these two platforms serve as the primary references for students in searching for information and completing assignments.

The use of Black Box (10 respondents), Cici (5 respondents), and Doal (5 respondents) indicates that some students also rely on supporting applications for more specific needs, such as programming or exploring alternative AI tools. Meanwhile, Claud is the least used application, with only 3 users.

Overall, the data illustrates that students tend to prefer AI applications that are popular, easily accessible, and capable of supporting the learning process quickly and accurately.

Implications of AI Use for Students' Mental Health

With the implementation of AI literacy through the AIMAH program, students receive guidance on how to use AI appropriately as well as instruction on digital ethical codes. Through this literacy initiative, students understand that AI should function solely as a supportive tool; they consistently cross-check information generated by AI and prefer sharing personal stories with friends or teachers rather than with AI systems. Students do not rely on AI for answers and continue to think critically when faced with various situations.

Regarding the use of online games, students reported that they use such games purely for entertainment. One student mentioned that through games or AI applications, they are able to experience things that may not be possible in the real world, such as becoming a mechanic, a football captain or manager, a chef, and more.

Discussion

The findings indicate that the implementation of AI literacy at Yayasan Muthahhari has been carried out systematically and progressively from the elementary to the high school level, emphasizing a balance between technical skills, digital ethics,

and humanistic relationships in the learning process. This approach aligns with theories of responsible digital literacy, which emphasize that learners must be prepared not only as technology users but also as individuals capable of understanding the social, ethical, and cognitive implications of AI use (Livingstone, 2018). At the elementary level, the introduction of educational applications and Scratch Junior reflects the concept of *constructionism* (Papert, 1980), namely, learning through exploration and the manipulation of digital objects. This approach is consistent with children's cognitive development during the concrete operational stage, as described by Piaget (1972), in which learners acquire knowledge most effectively through visualization and direct experimentation (Piaget, 1972).

At the junior and senior high school levels, the integration of advanced digital skills such as video editing, blog creation, and the exploration of machine learning reflects high-level digital literacy practices, which in the framework of Bloom's Digital Taxonomy fall under the categories of creating, evaluating, and analysing (Churches, 2008). The use of generative AI such as ChatGPT, Gemini, and DeepSeek supports the development of critical thinking and creative writing skills; however, the school firmly emphasizes that AI must be used to stimulate the thinking process, not replace it. This perspective aligns with metacognition theory (Flavell, 1979), which underscores that technology should function as a tool that encourages self-reflection rather than one that dulls cognitive abilities (Flavell, 1979).

From a theoretical perspective, the school's approach is also aligned with Rogers' (1969) humanistic education paradigm, which emphasizes relational qualities in the learning process. Teachers' concerns about the potential loss of human touch when AI dominates the learning process support Biesta's (2015) critique regarding the risk of reducing education to a technocratic process that prioritizes efficiency above all else (Biesta, 2015). In this context, the choice of a humanistic blended learning model reflects the school's effort to maintain emotional, intellectual, and spiritual connections between teachers and students. This is consistent with the concept of human-centered AI, which emphasizes that technology should be designed to enhance human capacities rather than replace them (Shneiderman, 2020).

Empirical studies reinforce these findings. Research by Holmes et al. (2019) shows that when AI is used as a supportive tool for learning rather than as a replacement for teachers, students demonstrate increased motivation and conceptual understanding (Holmen et al., 2019). Other studies have found that the use of AI in writing activities and problem-solving enhances students' academic performance when its use is accompanied by teacher guidance and ethical reflection (Zawacki, et al., 2019). The implementation of prompt-engineering training for teachers at Yayasan Muthahhari is also aligned with the findings of Gudmundsdottir & Hatlevik (2018), who emphasize that teachers' digital readiness is a key factor in the successful integration of technology in schools.

In terms of implications, this study shows that schools aiming to implement AI literacy must develop a pedagogical framework that goes beyond technical aspects. Strengthening digital ethics, understanding risks, and fostering awareness that AI is a neutral tool that must be used wisely form the essential foundation for preventing dependency, plagiarism, and the reduction of higher-order thinking.

For teachers, intensive training related to AI has become an urgent need so they can serve as competent facilitators who guide AI use in productive and reflective ways. For students, AI literacy should be oriented toward developing *critical digital agency* the ability to understand, control, and take responsibility for the impact of AI use on oneself and on society (Raffaghelli, 2020). These findings also carry policy implications: schools need to design an integrated, tiered, and values-oriented AI literacy curriculum, as implemented by Yayasan Muthahhari. This approach can serve as a model for other educational institutions in navigating the challenges and opportunities of education in the era of artificial intelligence.

Conclusion

The findings of this study show that Yayasan Muthahhari has implemented AI literacy comprehensively from elementary to high school levels through a gradual approach that emphasizes technical skills, digital ethics, and humanistic relationships. This integration not only builds students' digital competencies but also creates an emotionally safe learning environment, as students are introduced to AI as a supportive tool that must be used reflectively and responsibly. By providing early understanding of digital risks, ethical technology use, and the limitations of AI, the school helps students develop *critical digital resilience*, preventing technological anxiety, digital dependency, and academic pressure that may arise from improper AI use. This values-oriented educational approach strengthens students' self-regulation and sense of agency, both of which are essential for protecting mental well-being.

Overall, this study concludes that the AI literacy model at Yayasan Muthahhari positively contributes to students' mental health because it places human relationships at the core of learning, while technology is strategically used to support cognitive and emotional development. The humanistic blended-learning approach ensures that the teacher's role as an emotional guide remains central, preventing students from experiencing dehumanized learning or digital isolation due to excessive reliance on AI. By emphasizing that AI cannot replace human thinking or personal empowerment, the school fosters awareness that successful learning ultimately depends on personal effort, not on machines. This helps prevent academic stress, loss of self-confidence, and intellectual identity confusion, which often arise in the context of generative AI use. Thus, the implementation of ethical, critical, and humanistic AI literacy can serve as an important model for other schools seeking to develop learning environments that support students' mental well-being in the era of artificial intelligence.

Recommendations

1. For Researchers:

Further studies are needed to explore the relationship between AI literacy, patterns of technology use in schools, and the dynamics of students' mental health over time. Additionally, comparative studies across different schools are necessary to identify the most effective AI integration models that support students' psychological well-being.

2. For the Education Sector:

Schools should develop an AI literacy curriculum that balances technical skills, digital ethics, and humanistic values so that students can use AI productively without diminishing their critical thinking abilities or mental health. Intensive training for teachers on prompt engineering, AI ethics, and the psychosocial impacts of technology is crucial to ensure safe and effective guidance throughout the learning process.

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References

- Biesta, G. (2015). *Good education in an age of measurement: Ethics, politics, democracy*. Routledge.
- Churches, A. (2008). Bloom's Digital Taxonomy. *Tech & Learning Journal*.
- Chen, T., Ou, J., Li, G., & Luo, H. (2024). Promoting mental health in children and adolescents through digital technology: A systematic review and meta-analysis. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1356554>
- Diel, A., Schröter, I. C., Frewer, A.-L., Jansen, C., Robitzsch, A., Gradl-Dietsch, G., Teufel, M., & Bäuerle, A. (2024). A systematic review and meta analysis on digital mental health interventions in inpatient settings. *Npj Digital Medicine*, 7(1), 253. <https://doi.org/10.1038/s41746-024-01252-z>
- Djazilan, M. S., Rulyansah, A., & Rihlah, J. (2024). Why AI is Essential for the Future of Islamic Education: A Call for Ethical and Effective Implementation. *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran*, 5(2), 201–216. <https://doi.org/10.62775/edukasia.v5i2.1373>
- Hafiz, M., Mirza, F. F., & Kurniawan, W. (2025). Reconstruction of Islamic Religious Education Curriculum in Building Moderate Student Character in the Digital Era. *Edusoshum : Journal of Islamic Education and Social Humanities*, 5(2), 119–127. <https://doi.org/10.52366/edusoshum.v5i2.142>
- Hakim, F., Fadlillah, A., & Rofiq, M. N. (2024). Artificial Intelligence (AI) dan Dampaknya Dalam Distorsi Pendidikan Islam. *Urwatul Wutsqo: Jurnal Studi Kependidikan Dan Keislaman*, 13(1), 129–144. <https://doi.org/10.54437/urwatulwutsqo.v13i1.1330>
- Herbener, A. B., & Damholdt, M. F. (2025). Are lonely youngsters turning to chatbots for companionship? The relationship between chatbot usage and social connectedness in Danish high-school students. *International Journal of Human-Computer Studies*, 196, 103409. <https://doi.org/10.1016/j.ijhcs.2024.103409>
- Ibrahim, N. A. B. (2023). The Existence of Artificial Intelligence in the Future. *Journal of Technology and Informatics (JoTI)*, 5(1), 25–33. <https://doi.org/10.37802/joti.v5i1.349>
- Irawan, H., Asri, Y., Priasmoro, D. P., & Lutfi, E. I. (2025). Prevalence of Mental Health Stress among Indonesian Islamic Boarding Schools Students in the Early Post-COVID-19: A Cross-Sectional Study. *Journal Of Nursing Practice*, 8(4), 782–794. <https://doi.org/10.30994/jnp.v8i4.854>
- Flavell, J. H. (1979). Metacognition and cognitive monitoring. *American Psychologist*, 34(10), 906–911.
- Gu, X., & Ericson, B. J. (2025). *AI Literacy in K-12 and Higher Education in the Wake of Generative AI: An Integrative Review*.
- Gudmundsdottir, G. B., & Hatlevik, O. (2018). Newly qualified teachers' professional digital competence. *European Journal of Teacher Education*, 41(2), 214–231.
- Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial Intelligence in Education*. Center for Curriculum Redesign.

- International Journal of STEM Education. (2023). *AI literacy in K-12: a systematic literature review*.
- Khalaf, A. M., Alubied, A. A., Khalaf, A. M., & Rifaey, A. A. (2023). The Impact of Social Media on the Mental Health of Adolescents and Young Adults: A Systematic Review. *Cureus*, 15(8), e42990. <https://doi.org/10.7759/cureus.42990>
- Kim, J., Aryee, L. M. D., Bang, H., Prajogo, S., Choi, Y. K., Hoch, J. S., & Prado, E. L. (2023). Effectiveness of Digital Mental Health Tools to Reduce Depressive and Anxiety Symptoms in Low- and Middle-Income Countries: Systematic Review and Meta-analysis. *JMIR Mental Health*, 10, e43066. <https://doi.org/10.2196/43066>
- Livingstone, S. (2018). *The mediation of everything: Digital literacy and the reshaping of education*. Sage.
- Livingstone, S., & Third, A. (2017). Children and young people's rights in the digital age: An emergent agenda. *Journal of Youth Studies* — <https://10.1080/13676261.2016.1189157>
- Long, Zhang, Shijun & Chen. (2025). *Synergizing Self-Regulation and Artificial-Intelligence Literacy Towards Future Human-AI Integrative Learning*.
- Mahayana, D. (2025, July 8). *Otak Global Sibernetika Vs "Bullshitter Par Excellence."* KOMPAS.com. <https://tekno.kompas.com/read/2025/07/08/14302157/otak-global-sibernetika-vs-bullshitter-par-excellence>
- Nasution, I. S., Susilo, M. C., & Husnan Tengku, N. A. (2025). *Kesehatan Mental Remaja dan Tantangan Sosial-Digital: Analisis Literatur untuk Rekomendasi Kebijakan Kesehatan*.
- Olsson, C., & Spry, L. (2025, August 6). *Teens are increasingly turning to AI companions, and it could be harming them*. The Conversation. <http://theconversation.com/teens-are-increasingly-turning-to-ai-companions-and-it-could-be-harming-them-261955>
- Oders, C. L., & Jensen, M. R. (2020). Annual Research Review: Adolescent mental health in the digital age: Facts, fears, and future directions. *Journal of Child Psychology and Psychiatry* — DOI: 10.1111/jcpp.13190
- Palma, T. Y. (2025). Artificial intelligence dalam pendidikan: Kajian literatur mengenai dampak inovatif dan implikasi moral. *Syntax Literate: Jurnal Ilmiah Indonesia*.
- Papert, S. (1980). *Mindstorms: Children, Computers, and Powerful Ideas*. Basic Books.
- Piaget, J. (1972). *The psychology of the child*. Basic Books.
- Raffaghelli, J. (2020). Developing critical digital agency in education. *British Journal of Educational Technology*, 51(4), 1111–1125.
- Rogers, C. (1969). *Freedom to learn*. Merrill.
- Robb, M. B. (2025). *Talk, Trust and Trade-Offs: How and Why Teens Use AI Companions*. Common Sense Media.

- Shneiderman, B. (2020). Human-centered AI. *International Journal of Human-Computer Interaction*, 36(6), 495–504.
- Shofiyyah, N. A., & Ulum, M. (2025). *Digital Literacy and Critical Thinking in Adolescents: A Literature Review*.
- Sinaga, N. E., Mahardhika Dealova, M., & Nediva, V. (2025). Pengaruh penggunaan Artificial Intelligence terhadap pendidikan anak usia sekolah: Tinjauan literatur. *Jurnal Empati*, 13(6).
- Stoilova, M., Livingstone, S., & Nandagiri, R. (2021). *Children's data and privacy online: growing up in a digital age*. *New Media & Society* — DOI: [10.1177/14614448211029473](https://doi.org/10.1177/14614448211029473)
- Suhaoping, A. A. P., & Patricia, E. (2025). Artificial Intelligence and Social Media on Academic Performance and Mental Well-being: Students' Perceptions of the Impact of the Era of Smart Learning. *Journal of Smart Education & Emerging Technologies*, 2025.
- Truong, N., Puranam, P., & Testlin, I. (2025). *Why Trust in AI May Be Inevitable* (Version 1). arXiv. <https://doi.org/10.48550/ARXIV.2502.20701>
- Wafi, M. B. F., Ilhami, N., & Taufiqurohman, T. (2022). Transformasi Perilaku Beragama Masyarakat Muslim Kontemporer: Fenomena Al-Qur'an Di Era Digital. *IN RIGHT: Jurnal Agama Dan Hak Azazi Manusia*, 11(1), 39. <https://doi.org/10.14421/inright.v11i1.2503>
- WHO. (2021). *Global Strategy on Digital Health 2020-2025* (1st ed). World Health Organization.
- WHO. (2023). *Report of a Virtual Roundtable Meeting on Online Mental Health Content for Young People and Guidance on Communication*. World Health Organization. https://cdn.who.int/media/docs/default-source/digital-health-documents/report-of-a-virtual-roundtable-meeting-on-online-mental-health-content-for-young-people-and-guidance-on-communication.pdf?sfvrsn=94fb052f_1&download=true
- Zaini, M., Iskandar, et al. (2025). Integrasi kecerdasan buatan (AI) dalam pembelajaran: Dampaknya pada literasi digital dan berpikir kritis siswa. *Maulana Atsani: Jurnal Pendidikan Multidisipliner*.
- Zawacki-Richter, O., et al. (2019). Systematic review of research on artificial intelligence in higher education. *International Journal of Educational Technology in Higher Education*, 16(39).
- Zawacki-Richter, O., et al. (2019). Systematic review of research on artificial intelligence in higher education. *International Journal of Educational Technology in Higher Education*, 16(39).
- Zhang, H., & Cao, J. (2025). From digital disruption to mental health: the impact of AI-induced educational anxiety on teacher well-being in the era of smart education. *BMC Public Health*, 25, 4010.
- Zaharah, Z., Basyit, A., Husein, M. T., Fauzi, A., Arif, Z., & Sina, I. (2024). Revolutionizing Learning: The Impact of Artificial Intelligence on Islamic Education and the Wave of

Transformation. *AL-ISHLAH: Jurnal Pendidikan*, 16(4), 5685–5697.
<https://doi.org/10.35445/alishlah.v16i4.6078>
