

Integrating Artificial Intelligence Literacy and Akhlakul Karimah Values into Islamic Education at MTs Teladan Gebang

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ABSTRACT

The development of Artificial Intelligence (AI) in the field of education has opened up new opportunities to improve the quality of learning, including in the subject of Islamic Religious Education (PAI). However, the use of AI requires not only technical skills but also a foundation of moral and ethical values to ensure that its application remains consistent with Islamic principles. This study aims to analyze the integration of Artificial Intelligence literacy and akhlakul karimah values in PAI learning at MTs Teladan Gebang. This study employs a quantitative approach using a survey method. Data collection was conducted using a questionnaire that measured aspects of AI literacy, the use of AI in PAI instruction, akhlakul karimah in technology use, the ability to verify religious information (tabayyun), critical thinking, independent learning, and the role of PAI teachers in guiding the use of AI. The research data were analyzed using descriptive statistical techniques to describe trends in students' attitudes and behaviors regarding the use of AI technology.

The research findings indicate that students demonstrate positive AI literacy and ethical awareness in using AI as a tool to support Islamic Education (PAI) learning. AI is utilized to help students understand course material, search for religious information, obtain additional explanations, create summaries, and complete learning assignments. Nevertheless, students demonstrated an awareness that information generated by AI needs to be verified through the process of tabayyun, cross-referencing sources, and teacher guidance. The integration of akhlakul karimah values is evident through attitudes of honesty, responsibility, avoiding plagiarism, and the wise and moderate use of AI. This study emphasizes that AI literacy in Islamic Education (PAI) must be developed in balance with Islamic character education so that technology can serve as a means to improve the quality of learning without compromising students' moral and spiritual values. The role of PAI teachers is a critical factor in guiding the critical, ethical, and responsible use of AI in accordance with the values of akhlakul karimah.

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Introduction

The development of digital technology in the Society 5.0 era has brought about major changes in various aspects of life, including education. One technological development that has had a significant impact on the learning process is Artificial Intelligence (AI). AI technology can facilitate academic activities through its ability to process information, provide learning recommendations, assist in finding learning resources, and support a learning process that is more adaptable to students' needs. In the context of education, the use of AI is viewed not only as a technological tool but also as a learning innovation capable of enhancing the effectiveness, efficiency, and quality of learning interactions among students, teachers, and learning resources (Holmes et al., 2022). Therefore, AI literacy is a critical competency that must be developed so that students can understand, use, disseminate, and utilize AI technology appropriately and responsibly.

Islamic Religious Education (PAI), as a subject aimed at shaping students' character and personality, faces new challenges in the use of digital technology. The presence of AI in PAI learning offers great opportunities to expand access to Islamic learning resources, such as information on the Qur'an, hadith, tafsir, and various religious references. However, the use of AI in the religious field also carries risks because the information generated by AI systems does not always have the same level of accuracy and validity. Students need to develop critical thinking skills and engage in the process of *tabayyun* regarding information obtained through digital technology so that they do not accept information at face value without verifying it. The principle of *tabayyun* in Islam serves as a crucial foundation for navigating the evolution of digital information, as it instills an attitude of caution, source verification, and responsibility toward the information received (Rahman & Hidayat, 2023).

In addition to technological literacy, the use of AI in Islamic Education must also be integrated with the values of *akhlakul karimah*. Rapidly advancing technology cannot replace the role of education in shaping students' behavior. The use of AI requires moral values such as honesty, responsibility, trustworthiness, and ethical awareness to ensure that technology is not used to commit acts that contradict Islamic educational values, such as plagiarism, excessive dependence, or the dissemination of false information. Character education in the digital age is becoming increasingly important because students are expected not only to possess academic skills but also the ability to regulate their use of technology based on moral and religious values (Tsoraya et al., 2023). Thus, the integration of AI literacy and *akhlakul karimah* serves as a relevant approach to developing Islamic Education (PAI) that keeps pace with the times.

Various previous studies have shown that the use of artificial intelligence technology in education can have a positive impact on learning motivation, personalized learning, and increased access to information sources. However, most studies still focus on the technical aspects of using AI in general education, while research on the relationship between AI literacy and Islamic character values in Islamic Education (PAI) remains relatively limited. In fact, Islamic Education (PAI) has unique characteristics because it aims not only to enhance students' knowledge but also to shape their attitudes, behaviors, and spiritual values. This research gap highlights the importance of studies that integrate technological aspects with religious-moral dimensions in the use of AI within the madrasah environment.

This study was conducted at MTs Teladan Gebang, focusing on how students understand and use AI in Islamic Education (PAI) and how the values of *akhlakul karimah* are applied in their use of this technology. The novelty of this study lies in its effort to examine the integration of Artificial Intelligence literacy with Islamic character values in madrasah education. Unlike previous studies that mainly emphasize technological aspects, this research highlights the importance of

combining AI literacy, information verification (tabayyun), critical thinking, and akhlakul karimah values to encourage ethical and responsible AI utilization among students. This study is expected to provide theoretical and practical contributions to the development of technology-based PAI learning that remains oriented toward the formation of Islamic character.

Artificial Intelligence Literacy Theory (AI Literacy Theory)

Artificial Intelligence (AI) literacy is an individual's ability to understand the basic concepts of artificial intelligence, know how AI technology works, utilize the technology effectively, and communicate its impacts and limitations. AI literacy is not only related to the skills needed to use AI-based applications but also encompasses the ability to think critically when evaluating information generated by artificial intelligence systems. In the context of education, AI literacy is an essential competency so that students do not merely become users of the technology but are also able to understand its various aspects, security implications, and ethical responsibilities in its use (Ng et al., 2021).

The concept of AI literacy in education encompasses several key aspects, namely an understanding of how AI works, the ability to use AI technology to support learning, the ability to verify the accuracy of information provided by AI, and an awareness of the risks associated with the inappropriate use of technology. Students with strong AI literacy will be able to use technology as a learning tool without losing their ability to think independently. Therefore, AI literacy needs to be developed in educational settings so that students are prepared to face digital transformation critically and responsibly (Long & Magerko, 2020).

In Islamic Religious Education (PAI), AI literacy has specific characteristics because it involves religious information that requires a high degree of caution. The use of AI to search for verses from the Qur'an, hadiths, or explanations of religious material must be accompanied by the ability to verify sources. Thus, AI literacy in PAI education does not focus solely on technological skills but also requires the integration of Islamic scholarly values.

Artificial Intelligence in Educational Concepts (The Concept of AI in Education)

The use of artificial intelligence in education is growing as a form of learning innovation that can provide a more personalized, flexible, and interactive learning experience. AI can help students access information quickly, provide additional explanations for difficult-to-understand material, and assist with academic assignments. According to Holmes et al. (2022), AI in education has the potential to improve the quality of learning through systems that can adapt to students' learning needs.

Nevertheless, the application of AI in education presents challenges that must be addressed. AI technology can produce inaccurate information if the data used is inaccurate or the context of the question asked is inappropriate. Therefore, the use of AI must be accompanied by the ability to evaluate information and guidance from teachers so that students do not become dependent on technology. In PAI learning, teachers play an important role as guides so that the use of AI remains in line with the goals of Islamic education, namely to develop knowledgeable and morally upright individuals.

The Theory of Akhlakul Karimah (The Theory of Akhlakul Karimah)

Akhlakul karimah is a concept of character education in Islam that shapes human behavior based on values of goodness derived from Islamic teachings. Akhlakul karimah encompasses

honesty, trustworthiness, responsibility, discipline, respect for others, and the use of knowledge for the common good. From an Islamic educational perspective, the success of learning is measured not only by cognitive achievements but also by changes in students' attitudes and behavior.

In the context of AI technology use, the values of *akhlakul karimah* serve as a moral foundation that guides students to use technology appropriately. The value of honesty is essential to ensure that students do not plagiarize or pass off AI-generated work as their own. The value of responsibility is necessary for students to understand the consequences of using technology, while the value of trustworthiness guides students to use AI for beneficial purposes.

Character education in the digital age faces increasingly complex challenges because technological advancements can influence students' mindsets and behaviors. Therefore, integrating the values of *akhlakul karimah* into the use of AI is a crucial approach to ensure that technological progress goes hand in hand with the development of Islamic character (Tsoraya et al., 2023).

The Theory of Tabayyun in Digital Information (The Concept of Tabayyun in Digital Information)

Tabayyun is an Islamic concept that teaches the importance of verifying, confirming, and clarifying information before accepting or sharing it. This concept is particularly relevant in the context of digital technology, as people today are faced with a rapid and diverse flow of information. In the use of AI, the principle of tabayyun serves as a guideline to ensure that students do not immediately accept all information provided by technology without first verifying it.

The application of tabayyun in Islamic Education (PAI) can be achieved by developing the habit of comparing AI-generated information with reliable sources such as the Qur'an, hadith, textbooks, and teachers' explanations. This approach also encourages students to develop critical thinking skills when encountering various forms of religious information in the digital space. Thus, tabayyun becomes an essential component of Islamic digital literacy, which integrates technological skills with religious moral values.

Critical Thinking Theory (Critical Thinking Theory)

Critical thinking is a person's ability to analyze information, gather evidence, consider various perspectives, and make decisions based on rational judgment. In the use of AI, critical thinking is essential because technology only provides results based on specific data patterns and does not always possess the same contextual understanding as humans.

In Islamic Education (PAI) instruction, critical thinking helps students understand that religious information obtained through AI must be examined in depth. Students need to be able to distinguish between correct and incorrect information, understand the context of Islamic teachings, and use technology as a tool for knowledge development, not as a substitute for the thinking process. Critical thinking skills are one of the key competencies needed to address the challenges of digital education.

Relevance of Theory to Research

Based on these theories, research on the integration of Artificial Intelligence literacy and *akhlakul karimah* values in Islamic Education (PAI) is grounded in the understanding that the use of technology must be balanced with the character development of students. AI literacy provides technical and cognitive skills in using technology, while *akhlakul karimah* provides moral guidance

in its application. The integration of these two concepts is expected to produce students who are not only capable of using modern technology but also possess a critical mindset, a sense of responsibility, and a foundation in Islamic values.

Method

This study employs a quantitative descriptive approach using a survey method to analyze the integration of Artificial Intelligence (AI) literacy and akhlakul karimah values in Islamic Religious Education (PAI) at MTs Teladan Gebang. The quantitative approach was chosen because this study focuses on measuring students' levels of understanding, attitudes, and behaviors in utilizing AI technology to support learning. A survey method was used to collect empirical data through a questionnaire distributed to students as research respondents.

This study was conducted at MTs Teladan Gebang from August 1 to 31, 2026. The study population consisted of students at MTs Teladan Gebang who use or are familiar with artificial intelligence (AI) technology in their learning activities. The sample comprised 20 students selected using purposive sampling—a sampling technique based on specific considerations or criteria aligned with the study's objectives. The criteria for respondents in this study were students who had experience using AI technology or understood the application of AI in learning activities.

The research instrument used a questionnaire with a Likert scale consisting of five response options: Strongly Agree (SS), Agree (S), Undecided (R), Disagree (TS), and Strongly Disagree (STS). The instrument was developed based on research variable indicators covering Artificial Intelligence literacy (X1), the use of AI in Islamic Education (PAI) learning (X2), good character in the use of AI (Y1), tabayyun and verification of religious information (Y2), critical thinking in the use of AI (Y3), independent learning (Y4), and the role of PAI teachers in facilitating the use of AI.

Before being used in the study, the instrument first underwent validity and reliability testing to ensure that it could measure the research variables accurately and consistently. Validity testing was conducted through content validation (content validity) by examining the alignment between the research indicators and the test items used. Meanwhile, reliability testing was conducted to determine the instrument's consistency in producing stable data when used under the same conditions. The test results indicate that the instrument is suitable for use as a research data collection tool.

Data collection was conducted by distributing questionnaires to respondents and using open-ended questions to gather additional information about students' experiences using AI in Islamic Education (PAI) classes. The open-ended questions were used to explore students' views on the benefits of AI, the risks associated with its use, their attitudes toward religious information obtained through AI, the application of akhlakul karimah values, and the role of PAI teachers in guiding the use of technology.

The research data were analyzed using descriptive statistical analysis techniques. The analysis was conducted by calculating the frequency and percentage of respondents' answers for each research indicator to identify trends in students' understanding and attitudes toward the use of AI. In addition, data from open-ended questions were described using qualitative descriptive analysis to strengthen the interpretation of the research results. This study did not use specialized statistical software such as SPSS, SmartPLS, or other software; therefore, data processing was performed manually based on the grouping and interpretation of respondents' answers.

Through this method, this study is expected to provide an overview of how students integrate Artificial Intelligence literacy skills with the values of akhlakul karimah in Islamic Education

(PAI) learning, as well as the role of Islamic education in guiding the use of technology so that it remains grounded in moral values, ethics, and responsibility.

Results

The research results were obtained by distributing a questionnaire to 20 students at MTs Teladan Gebang. The data obtained were analyzed descriptively to determine the level of Artificial Intelligence literacy, the utilization of AI in Islamic Education (PAI) learning, and the application of akhlakul karimah values in the use of technology. The characteristics of the research respondents are presented in Table 1.

Table 1. Demographic Characteristics of Respondents

Respondent Characteristics	Category	Number	Percentage (%)
Grade	VII	15	75%
	VIII	5	25%
Gender	Female	20	100%
Experience with AI	Have used AI	20	100%
	Have never used AI	0	0

Based on Table 1, all research respondents are students who are familiar with or have used Artificial Intelligence technology. This indicates that AI is becoming familiar to Madrasah Tsanawiyah students and is becoming part of their learning experience. This situation serves as an important foundation for examining how AI literacy skills and Islamic character values are applied in the use of learning technology.

Table 2. Students' Levels of Artificial Intelligence Literacy

AI Literacy Indicators	Strongly Agree	Agree	Undecided	Dominant Percentage
Understanding the basic concepts of AI		✓		Agree
Knowing AI applications for learning	✓			Strongly Agree
Using AI to search for learning information	✓			Strongly Agree
Understanding that AI-generated answers require verification	✓			Strongly Agree
Understand the responsible use of AI	✓			Strongly Agree

The research results show that students have a positive level of AI literacy. Most students understand the function of AI as a technology that supports learning and recognize that information provided by AI still requires verification. These findings indicate that students are beginning to develop an awareness of the critical and responsible use of AI.

Table 3. The Use of Artificial Intelligence in Islamic Education

Forms of AI Utilization	Number of Respondents	Percentage (%)
Searching for Learning Information	20	100

Understanding PAI material	19	95
Creating a summary of the material	17	85
Searching for verses from the Qur'an and hadiths	15	75
Helping with homework	18	90
Writing papers/presentations	10	50

Based on Table 3, students most frequently use AI to search for information and to help them understand Islamic Education (PAI) material. This indicates that AI has functioned as a learning support tool. However, the use of AI is still guided so that it does not replace students' thinking processes but rather helps broaden their understanding of the learning material.

Table 4. Values of Akhlakul Karimah in the Use of AI

Indicators of Akhlakul Karimah	Response Trends
Using AI Honestly	Strongly Agree
Not claiming AI-generated results as one's own work	Strongly Agree
Not using AI for certain situations	Strongly Agree
Taking responsibility for AI-assisted tasks	Strongly Agree
Use AI for beneficial activities	Strongly Agree

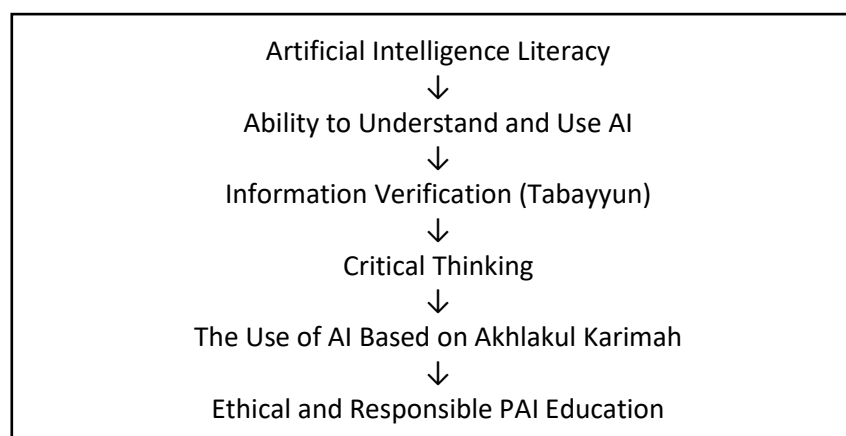
The research results show that students' use of AI is influenced not only by their technological skills but also by their moral values. Students demonstrated an awareness that AI must be used honestly and responsibly and should not be used as a means to cheat academically.

Table 5. Verification and Critical Thinking in the Use of AI

Indicators	Results
Verifying religious information from AI	High
Comparing AI information with books or other sources	High
Asking a teacher when information is in doubt	High
Not immediately trusting AI answers	High
Analyze information before using it	High

Based on the research results, students demonstrated the ability to verify information obtained from AI. This attitude was evident in their habit of double-checking information, comparing sources, and asking their PAI teachers for clarification when they encountered questionable information.

Figure 1. Model for Integrating AI Literacy and Akhlakul Karimah in PAI Instruction



The image illustrates that AI literacy in Islamic Education is not a standalone concept but must be integrated with Islamic character values. Technological capabilities supported by *akhlakul karimah* will lead to a wiser, more critical use of AI that aligns with the goals of Islamic education.

Discussion

The research findings indicate that the integration of Artificial Intelligence (AI) into Islamic Religious Education (PAI) at MTs Teladan Gebang has a positive impact on the learning process, particularly in terms of ease of accessing information, understanding the subject matter, and developing students' religious knowledge. Students utilize AI as a supportive tool to search for learning information, understand PAI concepts, create summaries, and access additional references related to the Qur'an and hadith. These findings indicate that AI has become an integral part of students' learning environment and has the potential to enhance learning effectiveness when used appropriately. This aligns with the research by Holmes et al. (2022), which explains that AI in education has the potential to improve quality by providing learning resources that are adaptive, personalized, and easily accessible to students.

However, the research findings also indicate that the use of AI in Islamic Education cannot be viewed solely from the perspective of technological convenience but must also take into account ethical and moral considerations. AI has limitations because the information it generates is based on available data patterns and does not always possess a perfect level of accuracy. Therefore, students need to possess AI literacy skills, which include an understanding of how AI functions, the ability to provide appropriate instructions, and the ability to disseminate information provided by AI. These findings reinforce the view of Long and Magerko (2020) that AI literacy is not only related to technological skills but also to the ability to understand, disseminate, and consider the social and ethical implications of AI use.

In the context of Islamic Education (PAI) learning, the ability to evaluate information is a crucial aspect because it relates to the understanding of religious teachings. Research findings indicate that students are already aware of the need to verify religious information obtained from AI through the process of *tabayyun*, comparing sources, reading books, and consulting with their PAI teachers. This attitude demonstrates the integration of digital literacy with Islamic values. The concept of *tabayyun* in Islam teaches people not to accept information at face value before verifying its accuracy. This principle has become increasingly relevant in the digital age, when information can be disseminated rapidly without undergoing an adequate validation process (Rahman & Hidayat, 2023).

In addition to aspects of technological literacy and information verification, this study found that the values of *akhlakul karimah* play a significant role in guiding students' use of AI. Students demonstrated an understanding that AI must be used honestly and responsibly and should not be used as a tool to cheat in academic settings. Attitudes such as not claiming AI-generated results as their own work, refraining from plagiarism, and using AI solely as a learning aid indicate a sense of moral awareness in the use of technology. This demonstrates that Islamic character education plays a vital role in addressing the development of digital technology. According to Tsoraya et al. (2023), character education in the digital age is necessary so that students develop the ability to regulate their use of technology based on moral values and social responsibility.

Research findings also indicate that the use of AI can support the development of students' critical thinking skills. AI is not only used to obtain answers quickly but also serves as a tool for comparing information, identifying various perspectives, and deepening understanding of the learning material. Critical thinking skills are essential because students need to understand that the

answers provided by AI still require human analysis. This aligns with the view of Kasneci et al. (2023), who state that generative AI technology in education should be used to support the thinking process, not as a substitute for students' own thinking abilities.

The role of Islamic Education teachers in this study is also a key factor in the successful integration of AI into learning. Teachers serve not only as conveyors of material but also as mentors who provide guidance on the ethical and responsible use of technology. Teachers play a role in fostering students' awareness so they can utilize AI without compromising the values of honesty, responsibility, and independent learning. From an Islamic educational perspective, technological advancements must remain focused on achieving the primary goal of education: shaping individuals who possess a balance between knowledge, skills, and moral character.

Based on the results of this study, it is clear that integrating Artificial Intelligence literacy with Islamic moral values is a relevant approach to Islamic Education in the digital age. AI offers great opportunities to improve the quality of learning, but its success depends heavily on the ability of students and teachers to use it wisely. Integrating technology with Islamic character values is the solution to ensure that the development of AI not only produces students who are digitally competent but also possess an Islamic character and are critical thinkers and responsible individuals.

Conclusion

This study shows that the integration of Artificial Intelligence (AI) literacy and akhlakul karimah values in Islamic Education (PAI) instruction at MTs Teladan Gebang has a positive impact on the learning process. Students are able to utilize AI as a supportive tool to understand the material, explore information, and broaden their religious knowledge.

However, the use of AI must be accompanied by critical thinking skills, a spirit of verification (tabayyun), and the values of honesty and responsibility to ensure that the technology is not misused. The role of PAI teachers is a crucial factor in guiding students to use AI ethically, wisely, and in accordance with Islamic values.

Thus, the integration of AI literacy and akhlakul karimah can serve as a relevant learning approach in the digital age. This approach not only develops students' technological competencies but also strengthens their ethical awareness, critical thinking, and Islamic character.

References

- Abdullah, MA (2021). The integration of science and religion in Islamic education in the face of the digital age. *Journal of Islamic Education*, 10 (2), 201–218.
- Alam, A. (2022). Utilizing adaptive learning and artificial intelligence to improve learning outcomes: A review of current trends and future possibilities. *Education and Information Technology*, 27, 12345–12362.
- Amin, M. (2022). Islamic character education in the face of the challenges of the digital age. *Tarbawi: Journal of Islamic Education*, 19 (1), 45–60.
- Arifin, Z., & Setiawan, A. (2023). Digital literacy and Islamic education: Strengthening student character in the technological age. *Jurnal Pe* (1), 55–72.

- Baker, T., Smith, L., & Anissa, N. (2021). *A Revival of AI Education? Exploring the Future of Artificial Intelligence in Schools and Learning*. Nesta.
- Chen, L., Chen, P., & Lin, Z. (2022). Artificial intelligence in education: A review. *IEEE Access*, 10, 75264–75278. <https://doi.org/10.1109/ACCESS.2022.3190146>
- Chiu, TKF, Xia, Q., Zhou, X., Chai, CS, & Cheng, M. (2023). A systematic literature review on opportunities, challenges, and recommendations for future research on artificial intelligence in education. *Computers and Education: Artificial Intelligence*, 4, 100118. <https://doi.org/10.1016/j.caeai.2023.100118>
- Fitria, TN (2023). Artificial intelligence (AI) in education: The use of AI tools for teaching and learning processes. *Journal of English Language Teaching and Linguistics*, 8 (1), 1–15.
- Hidayat, R., & Suryana, Y. (2022). Moral education as the foundation for character development of students in the digital age. *Journal of Islamic Education*, 19 (2), 175–190.
- Holmes, W., Bialik, M., & Fadel, C. (2022). *Artificial Intelligence in Education: Promises and Implications for Teaching and Learning*.
- Kasneci, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Groh, G., Günemann, S., Hüllermeier, E., & Kasneci, G. (2023). ChatGPT for good? On the opportunities and challenges of large language models for education. *Learning and Industry*, 102274. <https://doi.org/10.1016/j.lindif.2023.102274>
- Khosravi, H., Shum, S. B., Chen, G., & Conati, C. (2022). Explainable artificial intelligence in education. *Computers in Education: Artificial Intelligence*, 100074.
- Long, D., & Magerko, B. (2020). What is AI literacy? Competencies and design considerations. *Proceedings of the CHI 2020 Conference on Human Factors in Computing Systems*, 1–16. [Hhttps://doi.org/10.1145/3313831.3376727](https://doi.org/10.1145/3313831.3376727)
- Nata, A. (2021). *Islamic Education and the Challenges of the Global Era*. Media Prenada.
- Ng, DTK, Lee, M., Tan, RJY, Hu, X., & Downie, JS (2021). A review of AI literacy education and frameworks. *Computers in Education: Artificial Intelligence*, 2, 100034.
- OECD. (2021). *Digital Education Outlook 2021: Pushing the Boundaries with Artificial Intelligence, Blockchain, and Robotics*. OECD Publishing.
- Rahman, F., & Hidayat, A. (2023). Tabayyun as a principle of Islamic digital literacy in addressing the evolution of information in the technological age. *Indonesian Journal of Islamic Education*, 8 (1), 45–58.
- Rizvi, S., Waite, J., & Sentance, S. (2022). Teaching and learning artificial intelligence in schools: A systematic review. *Education and Information Technology*, 27, 12747–12775.
- Sallam, M. (2023). The utility of ChatGPT as an artificial intelligence tool in education, research, and healthcare practice: A systematic review. *Healthcare*, 11 (6), 887. <https://doi.org/10.3390/healthcare11060887>
- Schiff, D. (2021). Education for AI, not AI for education: The role of education and ethics in artificial intelligence. *AI and Ethics*, 2, 1–7.

- Selwyn, N. (2022). *Education and Technology: Key Issues and Debates*. Bloomsbury Academic.
- Tsoraya, N.D., Khasanah, I.A., Asbary, M., & Purwanto, A. (2023). The Importance of Character Education for Student Morality in the Digital Age. *Literaksi: Journal of Educational Management*, 1(01), 7–12.
- UNESCO. (2021). *AI and Education: A Guide for Policymakers*. United Nations Educational, Scientific, and Cultural Organization.
- UNESCO. (2023). *Guidelines for Generative AI in Education and Research*. UNESCO.
- Wang, Y., Liu, C., & Tu, Y. F. (2021). Factors influencing college students' acceptance of artificial intelligence in education. *Education and Information Technology*, 26, 1–20.
- Zawacki-Richter, O., Marín, VI, Bond, M., & Gouverneur, F. (2021). A systematic review of research on the application of artificial intelligence in higher education. *International Journal of Educational Technology in Higher Education*, 18, 39. <https://doi.org/10.1186/s41239-021-00264-5>