



ARTIFICIAL INTELLIGENCE IN EARLY CHILDHOOD EDUCATION: CHALLENGES AND OPPORTUNITIES FROM AN ISLAMIC RELIGIOUS EDUCATION PERSPECTIVE

Epy Pujiaty¹; Fahrisyah Rahayul Hadi²

STIT Bandung, Indonesia

¹epypujiatyok@gmail.com*, ²fahrisyarahayulhadi@gmail.com

Abstract

This study discusses the use of artificial intelligence in early childhood education from the perspective of Islamic religious education. The background of this research emerged because AI technology began to be used in children's learning, but it was not fully aligned with Islamic moral values and teachings. This study aims to explain how AI is used in early childhood learning, identify opportunities that can be utilized, and identify challenges that arise in its use. The method used is qualitative with a literature study approach, which involves collecting and reading various journals, books, and scientific sources related to research topics, and then analyzing them by grouping, comparing, and compiling findings so that they are easy to understand. The results of the study show that AI can facilitate learning to be more interesting, fast, and in accordance with children's abilities through media such as games, videos, chatbots, and smart learning systems. AI makes it easier for teachers to prepare materials and understand children's development. However, challenges such as the risk of misunderstanding religious teachings, reliance on technology, reduced social interaction, and ethical and data security issues exist. In Islamic religious education, AI cannot replace the role of teachers because teachers guide morals and set direct examples. Therefore, AI should be used as a tool that remains under the guidance of teachers and parents so that learning runs well without leaving religious values.

Keywords: Artificial Intelligence, Early Childhood Education, Islamic Education, Morals, Educational Technology

* *Corresponding author*



Creative Commons Attribution-ShareAlike 4.0
International License

Published by Teunuleh Research Center

A. Introduction

The development of digital technology is progressing rapidly. This technology has entered the world of education, including early childhood education. One of the technologies that is starting to be used often is artificial intelligence (AI). AI is a technology that helps humans think and learn. In Islamic education, AI is used in the form of chatbots, smart tutor systems, and interactive learning media. This makes it easier for students to learn religious material and understand it (Mahmudulhassan et al., 2024). The use of AI in Islamic education continues to increase annually. Research shows that since 2018, there have been an increasing number of studies on artificial intelligence (AI) in Islamic education. This can be seen in the learning of the Qur'an and Hadith, the creation of learning media, and the digitization of Islamic texts (Salim & Aditya 2025).

In learning activities, artificial intelligence (AI) makes learning more interesting. The material is displayed in the form of videos, images, and interactive systems according to students' abilities. AI can provide answers quickly and adjust the material according to the needs of each child (Hakim et al. 2023). In early childhood education, AI is more interesting because children like to learn through games and interactive stories (Cholis et al., 2024). AI helps teachers prepare materials and helps children learn according to their abilities (Daulay et al., 2025). In Islamic religious education, learning is not only knowledge but also morals, attitudes, and moral values (Shogar et al., 2024).

Although Artificial intelligence (AI) provides convenience, problems arise in early childhood education based on Islamic religious education. AI cannot guide morals like human teachers and cannot provide direct behavioral examples (Maulidia et al., 2025). AI only provides information based on data and has no moral or spiritual value (Fouad Larhzizer et al., 2025). There is a risk of mistakes in accepting religious teachings because children can receive information without knowing what is right or wrong (Sarfaraz, 2024). The use of AI can make children overly dependent on technology and less self-conscious if they are not supervised (Sarfaraz, 2024). In schools, many PAUD teachers are still not ready to use AI because they do not understand how it works and are worried about its impact (Rohmah et al., 2025). Facilities are also limited, such as unstable internet access and a lack of training for teachers (Azizah & Ilise, 2026).

Based on existing research, the discussion of artificial intelligence in Islamic education is still general and has not focused on early childhood (Salim & Aditya, 2025). Several studies have discussed AI in early childhood, but its application is still limited to learning media and children's learning interests. There is no clear explanation of the relationship between AI and the formation of children's morals in Islamic religious education (Cholis et al., 2024). Other studies have discussed the benefits of AI, such as helping teachers create teaching materials, but have not explained the long-term impact on children's morals and spirituality (Riski Dinata et al., 2025). Studies on the ethics of

using AI in Islamic education already exist, but not specifically in early childhood (Fouad Larhzizer et al., 2025). Research on child-friendly curricula and AI literacy also exists, but has not been combined in one discussion (Qomariyah et al., 2024). There is still no specific explanation on how to use AI in early childhood education while maintaining the value of Islamic education. The opportunities and challenges of AI have not been clearly explained.

This research is necessary because the use of artificial intelligence in education continues to develop and has entered early childhood education. If not studied properly, this technology can have a negative impact on children's morals and moral values (Khosibah et al., 2025). In contrast, AI can make learning more interesting and help children understand lessons more easily (Indra Daulay et al., 2025). Therefore, research is needed to ensure that AI is used appropriately. In Islamic religious education, AI must be used in accordance with values such as honesty, responsibility, and good morals (Mahmudulhassan et al., 2024). This study instructs teachers and parents to use AI wisely when teaching early childhood, without eliminating the role of humans (Fadhillah et al., 2025). This research is also expected to help improve educational rules according to technological developments (Rosmaini, 2025).

Based on the background, the formulation of the problem in this study is how to use artificial intelligence in early childhood education from the perspective of Islamic religious education, what are the opportunities from the use of AI in early childhood learning, and what are the challenges that arise when this technology is used. This study aims to examine how AI is used in children's learning, the benefits obtained, and the problems that arise, such as morality, teacher–child relationships, right and wrong rules, and data security. This study aims to explain the use of artificial intelligence (AI) in early childhood education from the perspective of Islamic religious education. This research explains how AI is used in learning, the opportunities that arise, and the challenges faced, such as children's morals, teacher duties, technological readiness, and data rules. This study also provides a scientific basis for AI to remain in line with Islamic values and continue to place teachers as guides. This research is expected to provide theoretical benefits to the study of artificial intelligence in early childhood education in Islamic religious education. This research can serve as a reference for other studies on the relationship between AI, early childhood education, and children's morals. From a practical perspective, this research helps Islamic PAUD teachers use AI wisely when teaching. Parents can also use it as a handle to accompany their children when using technology. For educational institutions, this research can be used to prepare teacher training, facilities, and rules for using AI that are safe and in accordance with Islamic values.

B. Methods

The writing method in This study uses a qualitative method with a literature study approach. This means that this research did not directly enter the field (Tinggi *et al.*, 2025). The researcher only searched for data from existing writings, such as scientific journals, books, and documents related to *artificial intelligence* in early childhood education from the perspective of Islamic religious education (Riski Dinata *et al.*, 2025). The qualitative method was used because the researcher wanted to understand the meaning, content, and message of the writing (Amilusholihah & Ramadhan, 2025). All were read carefully to answer the formulation of the problem that has been made (Rinaldi *et al.*, 2026).

The data collection process began with identifying a suitable source. Researchers searched databases such as Google Scholar (Mahmudulhassan *et al.*, 2024) and national and international journals that discussed AI, early childhood education, and Islamic religious education (Salim *et al.*, 2025). Subsequently, the researcher selected the source that best fit the topic. Researchers prefer sources that discuss the opportunities, challenges, and use of AI in children's learning (Shogar *et al.*, 2024). All selected sources were then read repeatedly so that the content was completely understood and not wrong when taking information (Qomariyah *et al.*, 2024). After the data were collected, the researcher conducted a selection. This means that the researcher chose which information was in accordance with the focus of the research and which was not (Rohmah *et al.*, 2025). The selected data were then compiled and grouped according to themes. Examples include the use of AI in learning, the opportunities that exist, the challenges faced, and the view of Islamic religious education on technology. This method makes the discussion neat and easy to read (Khosibah *et al.* 2025).

The next stage was data analysis. The researcher re-read all the selected sources. The researchers then looked for the same parts, different parts, and relationships between studies (Fadhillah *et al.*, 2025). The results were arranged into interconnected stories to answer the formulation of the problem. At this stage, researchers not only rewrote the content of the research but also explained the meaning of the findings (Kisno & Nia Fatmawati, 2025). Finally, the researcher drew conclusions from the results of the analysis (Indra Daulay *et al.*, 2025). Conclusions were drawn by summarizing all the results regarding the use of *artificial intelligence* in early childhood education. There are benefits and problems that arise, as well as how to view this technology in Islamic religious education (Azizah & Ilise, 2026).

C. Findings and Discussion

1. Research Results

Many studies have shown that AI helps children learn easier, faster, and more interestingly. AI has features such as chatbots and smart tutors that children can use to ask questions and receive answers (Mahmudulhassan et al., 2024). AI helps children learn through games and interactive stories, so that children are happier and begin to recognize values such as honesty and patience (Cholis et al., 2024). AI displays material through videos and moving images, allowing children to understand lessons faster (Khosibah et al., 2025). AI adjusts religious materials according to children's abilities, such as memorizing verses and adab, so that children do not find it too difficult (Rinaldi et al., 2026). AI helps teachers when teaching, such as finding ideas and creating learning media (Riski Dinata et al., 2025). AI helps teachers observe their students' development and adjust their teaching methods (Azizah & Ilise, 2026).

However, there are problems that need to be addressed. Children can misunderstand religious teachings and believe too much in technology (Sarfaraz, 2024). There are ethical issues, data privacy, and teachers' readiness to use technology (Hakim et al., 2023). The teacher–student relationship can be reduced, and data are at risk of misuse (Fouad Larhzizer et al., 2025). Children can interact less with friends, and religious values are not conveyed properly without supervision (Fitriyanti et al. 2024). Facilities and access to technology remain limited (Salim & Aditya, 2025). Many teachers are not ready to use AI in learning (Rohmah et al., 2025). Other problems include facilities, teacher readiness, and data ethics and security (Daulay et al., 2025).

In Islamic religious education, AI is only a tool and cannot replace teachers because teachers guide morals and set real-life examples for children (Maulidia et al., 2025). If used carelessly, religious values can be reduced because AI cannot provide examples of morals like humans (Shogar et al., 2024). Teachers must guide the use of AI in accordance with Islamic teachings (Fadhillah et al., 2025). Thus, AI can help children learn better, but it still needs supervision so that children are not only intelligent but also have good morals. This is shown in Table 1.

Table 1 Literature Studies

Yes	Researcher	Year	Title	Method	Findings
1	Mahmudulhassan, Muthoifin, & Begum	2024	<i>Artificial intelligence in Multicultural Islamic Education: Opportunities, Challenges, and</i>	Literature studies	AI makes learning easier to access and faster and can adjust students' abilities through smart tutors and <i>chatbots</i> . However, there are still obstacles to the gap in

Yes	Researcher	Year	Title	Method	Findings
			<i>Ethical Considerations</i>		technology, data security, and morals.
2	Salim & Aditya	2025	<i>Integration of Artificial intelligence in Islamic Education: Trends, Methods, and Challenges in the Digital Era</i>	Descriptive qualitative, literature study	The use of AI in Islamic education has increased since 2018, especially in the Qur'an, Hadith, AI media, and digitization of Islamic texts; however, obstacles to facilities, access, and ethics remain.
3	Cholis	2024	<i>Artificial intelligence (AI) Based Learning Media in Islamic Character Education for Early Childhood</i>	Qualitative, case studies	AI makes children more interested in learning through games and interactive stories and can make it easier to instill the values of honesty, patience, and responsibility.
4	Sarfaraz	2024	<i>The Impact of Learning Quran Sunnah through Artificial intelligence in Children and the Prophetic Method of Teaching; A Comparative Analysis</i>	Qualitative, literature review	AI makes it easier for children to learn faster and easier, but there is a risk of misunderstanding religion, over-reliance on AI, and less imitation of the Prophet's way of emphasizing morality.
5	Hakim & Anggraini	2023	<i>Artificial intelligence in Teaching Islamic Studies: Challenges and Opportunities</i>	Systematic literature review	AI can make learning faster, more engaging, and more comprehensive; however, there are issues of ethics, data privacy, and teacher readiness.
6	Larhizer et al.	2025	<i>Artificial intelligence in Islamic</i>	Literature study	AI makes learning easier and broader, but it must be subject to the values

Yes	Researcher	Year	Title	Method	Findings
			<i>Education: Ethics and Its Implications for Islamic Education</i>		of honesty, fairness, responsibility, and privacy; it cannot replace teachers.
7	Maulidia, Finetri, & Fahmi	2025	<i>When Teachers Are Digital: Islamic Education, Artificial intelligence, and Ibn Sīnā's Anxiety</i>	Qualitative, literature study	AI has only one function; it does not have spiritual or moral substance. Therefore, it is not suitable for replacing teachers in Islamic educational settings.
8	Amilusholihah & Ramadan	2025	<i>Exploring The Implementation of Artificial intelligence in Islamic Education: A Systematic Literature Review</i>	Systematic literature review	AI is effective in raising knowledge, motivation, critical thinking, creativity, and learning efficiency, but there are risks of data privacy, algorithmic bias, and reduced human connections.
9	Rosmaini	2025	<i>The Transformation of Islamic Education in the Era of Artificial intelligence (AI): Opportunities, Challenges, and Ethics of Its Use</i>	Library research, thematic content analysis	AI can provide personalized, adaptive, and efficient learning through <i>the use of chatbots</i> and automated evaluations. However, there are barriers to infrastructure, teachers' digital capabilities, and the curriculum.
10	Shogar & Azemin	2024	<i>Challenges and Opportunities of Artificial intelligence Technologies in Islamic Education Systems</i>	Theoretical and analytical studies	AI makes learning fast, distant, and engaging, but it can make education lose its religious value if teachers are excluded.

Yes	Researcher	Year	Title	Method	Findings
11	Rohmah, Nurlela, & Hilman	2025	<i>Perception of PAUD Teachers in the Use of Artificial Intelligence through Early Childhood Learning Activities</i>	Qualitative, literature study	Teachers see AI as a new tool that makes learning more interesting and according to children's needs, but they still lack understanding and are not ready.
12	Fadhillah, Syafitri, & Faizin	2025	<i>Reflection on the Use of Artificial Intelligence as a Learning Media in Islamic Education</i>	Qualitative, literature study	AI makes learning easier, faster, and more flexible; however, teachers still have to guide students so that they do not deviate from Islamic teachings.
13	Daulay & Daulay	2025	<i>Utilization of Artificial intelligence (AI) for Early Childhood</i>	Qualitative, literature study	AI makes learning more interesting and personalized, facilitating the development of thought, emotion, and creativity. However, problems remain with facilities, teacher readiness, ethics, and children's data.
14	Azizah & Ilise	2026	<i>Early Childhood Education Teachers' Experience Using Artificial Intelligence Technology Based on a Deep Learning Approach</i>	Qualitative, phenomenological	AI makes it easier for teachers to adjust learning, provide quick feedback, and monitor children's development; however, tools, the Internet, and technical knowledge are still obstacles.
15	Kisno & Fatmawati	2025	<i>Integration of Canva AI as an Artificial Intelligence Technology in</i>	Qualitative, conceptual	Canva AI makes it easier for students to be more creative, strengthens their digital skills, and makes them more likely

Yes	Researcher	Year	Title	Method	Findings
			<i>Early Childhood Islamic Education Students' Digital Content Design Learning</i>		to create Islamic learning content.
16	Qomariyah, Yanto, & Fathorrozy	2024	<i>Early Childhood Education in Technological Development: The Role of Child-Friendly Curriculum and Artificial Intelligence Literacy</i>	Literature research, content analysis	The child-friendly curriculum is designed according to the child's developmental stage, and AI literacy makes it easier for children to get to know technology from the beginning without separating from religious values.
17	Khosibah, Rahmaningrum, & Kusumawardani	2025	<i>The Potential and Practice of Artificial Intelligence (AI) Literacy in Early Childhood Education in Indonesia: Systematic Literature Review</i>	Systematic literature review	AI can make it easier for children to learn through <i>chatbots</i> , videos, games, and moving images; however, it is still constrained by the tools, teacher training, and clear rules.
18	Fitriyanti, Ridiana, Berdiamond, & Yuniar	2024	<i>Transformation of Islamic Education in the Era of Artificial Intelligence (AI): Challenges and Opportunities</i>	Kualitatif, library research	AI makes it easier for teachers to prepare materials according to children's needs, making learning more interesting; however, children may interact less, and religious values may be disturbed if they are not supervised.

Yes	Researcher	Year	Title	Method	Findings
19	Rinaldi, Masyitah, & Fahmi	2026	<i>The Potential of Artificial Intelligence in Personalizing Early Childhood Islamic Education Curriculum: Systematic Literature Review</i>	Systematic literature review	AI can be used through Intelligent Tutoring Systems, Social Robots, and Gamified AI to adjust the memorization of verses, reading the Qur'an, and manners to each child's ability.
20	Dinata, Qomarudin, Assagaf, & Maharani	2025	<i>The Utilization of Artificial Intelligence (AI) in Increasing the Creativity of RA Raudhotu Tolibin Pisang Indah Teachers in Learning Planning</i>	Descriptive qualitative	ChatGPT and Canva AI make it easier for teachers to find theme ideas, lesson plans, and learning media, which they can then adjust to align with Islamic values.

a. The Use of *Artificial Intelligence* in Early Childhood Education Perspective of Islamic Religious Education

AI in Islamic education helps children learn more easily through chatbots and smart tutors; however, it still needs to be directed in accordance with religious values (Mahmudulhassan et al., 2024). The use of AI in Islamic education has continued to increase since 2018, especially in the learning of the Qur'an, Hadith, and digital media (Salim and Aditya, 2025). AI makes children more interested in learning through interactive games and stories and helps instill morals (Cholis et al., 2024). AI makes learning more interesting and helps teachers understand children's needs (Daulay et al., 2025). Teachers see AI as useful but still do not understand how to use it (Rohmah et al., 2025). AI facilitates learning but is still constrained by facilities and technical knowledge (Azizah & Ilise, 2026). AI helps prospective teachers become more creative in making teaching materials (Kisno & Nia Fatmawati, 2025). A child-friendly curriculum and AI literacy must be introduced early (Qomariyah et al., 2024). AI makes learning more interesting and according to children's abilities (Khosibah et al., 2025). AI makes learning more interactive and according to children's needs (Fitriyanti et al., 2024). AI helps

memorize and conduct according to children's abilities (Rinaldi et al., 2026). AI makes it easier for teachers to prepare for learning (Riski Dinata et al., 2025).

b. Artificial Intelligence *Opportunities* in Early Childhood Education Islamic Religious Education Perspective

Artificial intelligence (AI) helps children learn easily, quickly, and according to their abilities if they remain in accordance with Islamic values (Mahmulhassan et al., 2024). AI makes learning more interesting through videos, chatbots, and interactive systems, making Islamic education more suitable for the digital age (Salim & Aditya, 2025). AI helps children learn morals, such as honesty, patience, and responsibility, through games and stories (Cholis et al., 2024). AI makes children more interested in learning and helps teachers understand children's needs (Indra Daulay et al., 2025). AI can adjust learning and provide quick responses, making it easier to monitor children's development (Azizah & Ilise, 2026). AI helps prospective teachers become more creative in making teaching materials according to Islamic values (Kisno & Nia Fatmawati, 2025). Children can learn about AI from an early age through a child-friendly curriculum that does not compromise religious values (Qomariyah et al., 2024). AI helps learn through chatbots, videos, games, and moving images, including for children with special needs (Khosibah et al., 2025). AI helps teachers make material more interesting using images and sounds (Fitriyanti et al., 2024). AI adjusts PAI learning, such as memorization of verses and manners, according to the child's ability (Rinaldi et al., 2026). AI also helps teachers prepare for learning faster, allowing them to spend more time with children (Riski Dinata et al., 2025).

c. The Challenges of *Artificial Intelligence* in Early Childhood Education Perspectives of Islamic Religious Education

AI can cause children to make mistakes when learning religion because they cannot distinguish between right and wrong; thus, children can trust technology too much and think less on their own (Sarfaraz, 2024). AI also raises ethical issues, data privacy, and teacher readiness, which is still low (Hakim et al., 2023). The use of AI risks causing children to misunderstand teachings, reducing the relationship between teachers and students, and opening up opportunities for data misuse (Fouad Larhizer et al., 2025). AI is only a tool and cannot replace teachers in guiding morals (Maulidia et al., 2025). If not careful, learning can become rigid, and moral values may not be conveyed (Shogar et al., 2024). Many teachers are not ready and still need training (Rohmah et al., 2025). Another obstacle is the lack of facilities, networks, and concerns about children not interacting (Azizah & Ilise, 2026). Many schools are also not ready to use AI, and children need to be supervised so that they do not overuse technology (Khosibah et al., 2025). Other issues include facilities, teacher readiness, ethics, and data security (Indra Daulay et al., 2025). AI also risks making children dependent on technology and reducing social relationships and faith appreciation (Rinaldi et al., 2026). Children can interact less,

and religious values are not conveyed properly without supervision (Fitriyanti et al., 2024). Teachers should not rely entirely on AI to maintain religious relationships and values (Dinata et al., 2025).

d. The Role of Teachers and Islamic Ethics in the Use of *Artificial Intelligence*

Mahmudulhassan, Muthoifin, and Sazirul Begum (2024) explain that AI must be used according to Islamic values, such as fairness, empathy, and maintaining morals. Teachers must be present to guide students (Mahmudulhassan *et al.*, 2024). Larhzizer et al. (2025) make it clear that AI must follow the values of honesty, fairness, responsibility, and privacy. AI is merely a tool and not a substitute for humans. Religious education still requires moral values and human relationships. (Fouad Larhzizer *et al.*, 2025) Maulidia et al. (2025) explain that teachers do not only deliver material but also guide the souls and morals of their students. Teachers guide the soul and morals of their students. AI has no soul or moral values; therefore, it cannot replace teachers. (Maulidia *et al.*, 2025)

Research by Ibrahim Adam Ahmed Shogar and Mohd. Shogar et al. (2024) explained that Islamic education still requires teachers as murabbi. Teachers maintain a balance between worldly knowledge and religious values. AI can be used, but it must be in accordance with religious rules to avoid deviating from the purpose of Islamic education. (Shogar *et al.*, 2024) Research by Annisa Nur Fadhillah, Syafitri, and Moh. Faizin explained that, in 2025, teachers must guide, supervise, and direct the use of AI. This is because it does not go against the teachings of Islam. The direct relationship between teachers and students cannot be replaced by machines. (Fadhillah *et al.*, 2025) Rosmaini (2025) explained that AI must be in accordance with sharia maqashid, such as hifz al-din and hifz al-aql. AI is only a tool that is subject to human values and is not a substitute for murabbi. (Rosmaini, 2025)

2. Discussion

a. The Use of *Artificial Intelligence* in Early Childhood Education Perspective of Islamic Religious Education

The use of *artificial intelligence* (AI) in early childhood education from the perspective of Islamic religious education has begun to enter many ways of learning. From the results of many studies, AI comes in the form of *chatbots*, interactive videos, educational games, and learning systems that can adjust children's abilities. Mahmudulhassan, Muthoifin, and Begum explained that AI can make learning easier, faster, and according to students' abilities, especially when learning the Qur'an and Hadith (Mahmudulhassan *et al.*, 2024). The same results can be seen in the research of Salim and Aditya, which shows that the use of AI has continued to increase since 2018 and is widely used in digital-based Islamic religious learning (Salim & Aditya, 2025).

In early childhood, the use of AI is more directed toward fun things, such as games, stories, and pictures, so that children like to learn. Cholis et al. (2024) showed that AI can make it easier for children to recognize moral values such as honesty, patience, and responsibility through direct experience in the application. This is strengthened by Daulay and Daulay's research, which states that AI can adapt material to children's abilities and facilitate the development of children's thinking and creativity (Indra Daulay *et al.*, 2025). Although AI has been frequently used in Islamic religious education, teachers' positions cannot be replaced. Maulidia, Finetri, and Fahmi's research explains that AI is just a tool that has no spiritual and moral value; therefore, it cannot become an educator like humans (Maulidia *et al.*, 2025). This means that the use of AI must be accompanied by teachers so that children's moral values, faith, and attitudes are well formed.

b. Artificial Intelligence Opportunities in Early Childhood Education Islamic Religious Education Perspective

The presence of *artificial intelligence* brings many opportunities in early childhood education, especially in making learning more interesting and easier to understand. Mahmudulhassan, Muthoffin, and Begum showed that AI can make learning more interactive and interesting so that children can receive lessons more easily (Mahmudulhassan *et al.*, 2024). This is strengthened by the research of Khosibah, Rahmaningrum, and Kusumawardani, who found that AI makes it easier for children to learn through videos, games, and moving images so that children can understand the material faster (Khosibah *et al.*, 2025). AI provides opportunities for learning that are tailored to each child's abilities. Rinaldi, Masyitah, and Fahmi showed that AI can adjust materials, such as the memorization of verses and learning adab, according to the abilities of each child (Rinaldi *et al.*, 2026). This makes it easier because every early childhood has different abilities.

AI makes it easier for teachers to prepare for learning. Dinata, Qomarudin, Assagaf, and Maharani showed that AI, such as ChatGPT and Canva AI, makes it easier for teachers to find ideas, create lesson plans, and prepare learning media (Riski Dinata *et al.*, 2025). With this assistance, teachers can focus more on directly accompanying children. In terms of Islamic religious education, AI opens up opportunities to introduce moral values at a young age. Qomariyah, Yanto, and Fathorozy's research explains that AI can be used to introduce technology while instilling good manners, responsibility, and good attitudes in children (Qomariyah *et al.*, 2024). Thus, technology is not only used to acquire knowledge but also to shape children's attitudes.

c. The Challenges of Artificial Intelligence in Early Childhood Education Perspectives of Islamic Religious Education

The use of *artificial intelligence* (AI) in Islamic-based early childhood education presents several challenges. One of the core problems is the risk of misinterpreting

religious teachings. Sarfaraz's research shows that AI can make children misunderstand because AI cannot distinguish which teachings are correct and which are incorrect, even children can trust AI more than teachers and parents (Sarfaraz, 2024). Another problem is the reduced relationship between children and teachers. Larhzizer et al. (2025) explain that the use of AI can reduce direct meetings between teachers and students, whereas in Islamic education, this relationship is needed to form morals. The same thing was found by Fitriyanti et al. (2024), who stated that children can become less concerned and less likely to interact with friends if they use technology too often.

The next challenge is the readiness of teachers and facilities to implement AI. Rohmah, Nurlela, and Hilman showed that many PAUD teachers do not know how to use AI and feel unprepared (Rohmah *et al.*, 2025). Khosibah et al. (2025) showed that many schools in Indonesia do not have sufficient facilities to use AI properly. There are also ethical and data security issues. Hakim and Anggraini explain that the use of AI poses a risk to data privacy and requires clear rules to prevent misuse (Hakim *et al.*, 2023). This is reinforced by research by Rinaldi and his team that mention that children's data can be insecure and children can be overly dependent on technology (Rinaldi *et al.*, 2026)

d. The Role of Teachers and Islamic Values in the Use of *Artificial Intelligence*

In Islamic-based early childhood education, teachers remain core figures, even though technology is increasingly advanced. Maulidia et al. (2025) confirmed that teachers not only convey material but also guide the soul and shape children's morals. AI cannot replace this because it lacks human nature. Shogar and Azemin's research explains that Islamic education not only teaches knowledge but also forms morals; therefore, teachers must remain present as core mentors (Shogar *et al.*, 2024). This implies that AI should only be used as a tool and not as a substitute for teachers.

From an ethical perspective, the use of AI must be in accordance with Islamic values, such as honesty, fairness, responsibility, and maintaining privacy. Larhzizer et al. (2025) explain that AI must be used with rules that are in accordance with religious values to avoid undermining the goals of Islamic education. Fadhillah, Syafitri, and Faizin explained that teachers must supervise the use of AI so that it remains in accordance with Islamic teachings (Fadhillah *et al.*, 2025). Therefore, the use of *artificial intelligence* in early childhood education remains under the control of humans, especially teachers and parents, so that this technology facilitates learning without damaging children's religious values and morals.

D. Conclusion

The results of the research discussed above lead to the conclusion that artificial intelligence in early childhood education, according to the view of Islamic religious education, is only a learning aid that makes the learning process easier, faster, fun, and

in accordance with children's abilities. Children can learn through games, stories, videos, and interactive media, making it easier to understand lessons and begin to learn morals such as honesty, patience, and responsibility, while teachers are helped in preparing teaching materials and observing children's development. However, the use of AI still has risks, such as misunderstandings in religious teachings, dependence on technology, reduced social interaction, and ethical and data security issues, especially if teachers are not ready to use it. In the view of Islamic religious education, AI cannot replace teachers because teachers guide morals and set real examples; therefore, its use must be supervised by teachers and parents so that it remains in accordance with Islamic values, so that children are not only smart but also have good morals.

Bibliography

- Amilusholihah, A., & Ramadhan, N. J. H. (2025). Exploring The Implementation of *Artificial Intelligence* in Islamic Education: A Systematic Literature Review. *Ngaji: Jurnal Pendidikan Islam*, 5(1), 3–17. <https://doi.org/10.24260/Ngaji.V5i1.95>
- Azizah, A., & Ilise, R. N. (2026). Pengalaman Guru Paud Menggunakan Teknologi *Artificial intelligence* Berbasis Pendekatan Deep Learning. *Riggs: Journal of Artificial intelligence And Digital Business*, 5(1), 1718–1725. <https://doi.org/10.31004/Riggs.V5i1.5664>
- Cholis, N., Miftahul, S., & Nganjuk, U. (2024). *Artificial intelligence* (AI) Based Learning Media in Islamic Character Education for Early Childhood. In *J T P Journal of Learning Technology* (Vol. 1, Number 2). <https://Oj.Miukn.Org/Index.Php/Jtp>
- Fadhillah, A. N., Syafitri, F. R., & Faizin, M. (2025). Refleksi Pemakaian *Artificial Intelligence* Sebagai Media Pembelajaran Dalam Pendidikan Islam. *Eduvak: Jurnal Pendidikan Islam Anak Usia Dini*, 3(4), 4–5.
- Fouad Larhzizer, Dedy Irawan, Arif Usman, Aprizon, Ibrahim Hammad, Riky Supratama, Siti Qomala Khayati, Eka Mahargiani Rokhma, Alfian Eko Rochmawan, & Edi Susanto. (2025). *Artificial Intelligence* In Islamic Education: Ethics and Its Implications for Islamic Education. *Amorti: Jurnal Studi Islam Interdisipliner*, 161–168. <https://doi.org/10.59944/Amorti.V4i4.490>
- Hakim, Abdul, & Pauli Anggraini. (2023). *Artificial Intelligence* In Teaching Islamic Studies: Challenges And Opportunities. *Molang: Journal Islamic Education*, 2(4), 2–3.
- Indra Daulay, M., Hannum Daulay, D., Pahlawan Tuanku Tambusai, U., & Al-Hikmah Medan, S. (2025). *Pemanfaatan Artificial intelligence (Ai) Untuk Anak Usia Dini*. 5(1). <https://Jurnalfkip.Unram.Ac.Id/Index.Php/Jmp/Index>
- Khosibah, S. A., Rahmaningrum, A., & Kusumawardani, C. T. (2025). Potensi Dan Praktik Literasi *Artificial intelligence* (Ai) Dalam Pendidikan Anak Usia Dini Di Indonesia:

Systematic Literature Review. *Jea (Jurnal Edukasi Aud)*, 11(1), 55–69.
<https://doi.org/10.18592/Jea.V11i1.16329>

Kisno, & Nia Fatmawati. (2025). Integrasi Canva Ai Sebagai Teknologi *Artificial intelligence* Dalam Pembelajaran Desain Konten Digital Mahasiswa Pendidikan Islam Anak Usia Dini. *Indonesian Journal of Islamic Golden Age Education*, 4–5.
<https://doi.org/10.32332/ljigaed>

Mahmulhassan, M., Muthoifin, M., & Begum, S. (2024). *Artificial intelligence* In Multicultural Islamic Education: Opportunities, Challenges, And Ethical Considerations. *Solo Universal Journal Of Islamic Education and Multiculturalism*, TU2(01), 19–26. <https://doi.org/10.61455/Sujiem.V2i01.114>

Maulidia, M., Finetri, M., & Fahmi, M. (2025). When Teachers Are Digital. *Kanz Philosophia: A Journal For Islamic Philosophy and Mysticism*, 11(1), 131–152.
<https://doi.org/10.20871/Kpjipm.V11i1.418>

Qomariyah, Nurul, Masti Yanto, & Fathorrozy. (2024). Pendidikan Anak Usia Dini Dalam Perkembangan Teknologi: Peran Kurikulum Ramah Anak Dan Literasi *Artificial Intelligence*. *Kiddo: Jurnal Pendidikan Islam Anak Usia Dini*, 2(3), 6.
<https://doi.org/10.19105/Kiddo.V5i1.12782>

Rinaldi, R., Fahmi, K., Raudhatul Akmal, S., & Serdang, D. (2026). Potensi Pemanfaatan *Artificial Intelligence* Dalam Personalisasi Kurikulum Pendidikan Islam Anak Usia Dini: Systematic Literature Review. *Al-Aulad: Jurnal Pendidikan Islam Anak Usia Dini*, 1(1), 2026.

Riski Dinata, F., Qomarudin, M., Assagaf, L., Dewi, D., & Maharani, S. (2025). Pemanfaatan *Artificial Intelligence* (AI) Dalam Meningkatkan Kreativitas Guru Ra Raudhotu Tolibin Pisang Indah Pada Perencanaan Pembelajaran. *Jurnal Pendidikan Islam Anak Usia Dini*, 1(1), 30–35.

Rohmah, S., Nurlela, E., Hilman, C., Al Andina Sukabumi, S., & Langlangbuana, U. (2025). Persepsi Guru Paud Dalam Pemakaian *Artificial intelligence* Melalui Kegiatan Pembelajaran Anak Usia Dini. In *Jurnal Pendidikan Islam Anak Usia Dini* (Vol. 1, Number 1).

Salim, M. A., & Aditya, R. B. (2025). Integration of *Artificial Intelligence* in Islamic Education: Trends, Methods, and Challenges in The Digital Era. *Journal of Modern Islamic Studies and Civilization*, 3(01), 74–89.
<https://doi.org/10.59653/imisc.v3i01.1368>

Salim, M. Agus, & Riska Bayu Aditya. (2025). Transformasi Pendidikan Islam Di Era *Artificial Intelligence* (AI) : Tantangan Dan Peluang. *Journal of Modern Islamic Studies and Civilization*, 2.

Sarfazar, S. (2024). The Impact of Learning Quran and Sunnah Through *Artificial Intelligence* In Children and The Prophetic Method Of Teaching; A Comparative Analysis. In *Research Journal* (Vol. 4).

Shogar, Ibrahim Adam Ahmed, & Mohd. Zulfaezal Bin Che Azemin. (2024). Challenges and Opportunities of *Artificial intelligence* Technologies in Islamic Education Systems. *Revelation And Science*, (2), 3.

Tinggi, S., Islam, A., Rauf, S. A., & Singkil, A. (2025). The Transformation of Islamic Education in The Era of *Artificial Intelligence* (AI): Opportunities, Challenges, And Ethics of Its Use Rosmaini. *Teunuleh Scientific Journal the International Journal of Social Sciences*, 6(3). <https://doi.org/teunuleh.v6i3.228>