

Artificial Intelligence in Islamic Religious Education: Balancing Learning Efficiency And Safeguarding Spiritual Integrity In Indonesian Higher Education

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Abstract

Technological advances, including artificial intelligence (AI), are starting to be applied in Islamic Religious Education. However, the integration of AI in PAI needs to be taken seriously because the aims of PAI do not only include cognitive aspects, but also the formation of character and spiritual values in accordance with Islamic teachings. This research aims to explore the potential of AI in PAI, identify challenges that may arise, and formulate strategies to maintain a balance between technological advances and religious values. The research method used is descriptive qualitative with a case study approach to analyze the role of AI in the PAI learning context. The research results show that AI can increase the

accessibility of teaching materials by adapting to students' local and cultural contexts, as well as increasing student engagement in the learning process. However, a special strategy is needed to ensure that AI integration remains in line with Islamic values, including: (1) Integration of AI systems with a framework that is guided by Islamic principles, and (2) Development of AI based on religious ethics. This research recommends further empirical studies to measure the effectiveness of using AI in PAI learning.

Keywords: AI, PAI, Learning Efficiency, Spiritual Values.

Introduction

The development of technology is accelerating. Every year, technological innovations are designed to make human work easier. One of the technologies that has recently been present and used in all sectors of life is artificial intelligence (AI), which, if interpreted in Indonesian, means artificial intelligence. AI is also included in the education sector and plays a role in the learning process in schools and colleges (Mulianingsih et al., 2020). The development of Artificial Intelligence (AI) technology has brought significant transformations in various fields, including education. AI has become an increasingly important tool in improving the efficiency and personalization of learning. The use of AI in education still has pros and cons because one of the negative impacts is students' dependence on AI, which reduces their critical thinking power (Noor Komari Pratiwi et al., 2024). One of the good impacts of its use in learning is that with AI, the focus can be on students, so that learning can run interactively (Zahara et al., 2023).

The application of AI in education is a good thing to study in more depth. Moreover, there is a policy from Education Minister Abdul Mu'ti to include AI and *Coding* in the school curriculum as an elective subject, even at the elementary level (Devita Savitri, 2025). The policy requires the curriculum, teachers, and tools needed, and students need to adjust to achieve the learning goals. The policy has implications for the close interaction of students with AI. The implication of the policy is not only true in STEM learning, but it will be possible if teachers and students use it in Islamic Religious Education (Aisyah et al., 2025). In Islamic Religious Education, AI can be used to develop more interactive and effective learning methods, such as using AI-based applications to learn the Qur'an or understand Islamic concepts (Huda & Suwahyu, 2024).

Technological developments, particularly Artificial Intelligence (AI), have brought about major changes in various sectors, including education. AI has been proven to improve efficiency and personalisation in the

learning process, enabling more adaptive learning that is focused on the individual needs of students (Brynjolfsson & McAfee, 2014). This technology supports the use of interactive and data-driven learning applications, which can help facilitate the achievement of educational goals. However, the application of AI in the context of Islamic Religious Education (IRE) presents unique challenges, as IRE aims not only to enhance cognitive understanding but also to shape students' moral and spiritual character (Begum et al., 2024). In this regard, the use of AI in PAI requires a cautious approach, where technology not only plays a role in learning efficiency but also in preserving deep spiritual values. Therefore, it is important to explore how AI can support religious education without compromising the spiritual and moral essence that lies at the core of Islamic Religious Education (Karagkouni & Sotiropoulou, 2023).

In the learning process still embedded in STEM, the learning goals can be easier with the learning indicators of the skill goals to be achieved. However, it will be different from subjects such as Islamic Religious Education (Kahfi et al., 2024). In the 2013 curriculum, it is explained that the purpose of Islamic education is to focus on character education. Islamic Religious Education aims to form students into individuals with a character based on the values taught in Islam and local knowledge (Shodik, 2019). It is not only the state of cognition, but there are demands for character changes based on Islamic values. Students are expected to have morals, noble ethics, religiosity, and nationalism, which can be useful for religion and the nation (Shodik, 2019). On the other hand, technological trends in education show a shift from traditional learning methods towards the use of advanced technologies, including Artificial Intelligence (AI), to enhance a more interactive and personalised learning experience (Siemens et al., 2019). Technology, when used wisely, can enrich the educational process by enabling more flexible learning that is focused on individual needs. However, its application must be aligned with broader educational goals, including spiritual values, in the context of Islamic religious education (Ahyani et al., 2021). This framework combines Islamic educational principles with technological developments to assess how AI can be applied to support the objectives of Islamic religious education without neglecting moral and spiritual values.

With AI in Islamic Religious Education, teachers and students should be able to correctly sit down and understand the functions of AI in supporting the Islamic Religious Education learning process. However, behind the great potential of AI, there are challenges in maintaining spiritual and moral values, especially in the context of Islamic Religious Education (Rafliyanto & Mukhlis, 2023). The excessive or uncontrolled

use of AI can erode the values of humanity and spirituality at the core of religious education (Wahyuni et al., 2025). Misplacing AI in the Islamic Religious Education learning process can hinder achieving the goals of Islamic Religious Education learning. Moreover, the purpose of Islamic Religious Education learning does not only stop at the level of understanding of values and what must be carried out as a Muslim, but can reach the level of character change that can become a person who believes and fears Allah SWT (Hakim et al., 2025).

The scope of this research focuses on the application of Artificial Intelligence (AI) technology in Islamic religious education at the higher education level in Indonesia. This research addresses the influence of AI on learning efficiency, particularly in the context of Islamic religious education, which focuses on character building based on Islamic values and local knowledge. This research will explore how AI can support interactive and effective learning, such as the use of AI-based applications to learn the Qur'an or understand Islamic concepts (Huda & Suwahyu, 2024). In addition, this research will also identify challenges in maintaining the spiritual integrity and moral values at the core of Islamic religious education by highlighting the potential negative impact of excessive or uncontrolled use of AI in the learning process (Wahyuni et al., 2025). This research is expected to provide insights on how to balance technological efficiency with the preservation of religious values, so that AI can be a tool that supports rather than replaces the role of educators in instilling spiritual values (Gil de Zúñiga et al., 2024).

Therefore, it is important to balance the efficiency of technology with religious values. The integration of AI in Islamic Religious Education must be done with care, ensuring that technology is used as an aid, not a substitute for the role of teachers in instilling spiritual and moral values (Ai et al., 2024). This is in line with the view that technology should serve as a means to facilitate learning, without neglecting the fundamental human and spiritual aspects. Thus, this study aims to explore the potential of AI in improving learning efficiency, especially in the context of Islamic Religious Education, as well as identify challenges and strategies to maintain a balance between technological advances and religious values.

Research Method

This study uses a qualitative research method with a case study approach to explore how Artificial Intelligence (AI) technology is applied in Islamic religious education (PAI) in Indonesian higher education. Qualitative research was chosen because it provides an in-depth understanding of the phenomenon (Miles et al., 2014), which in this case

is the interaction between AI technology and religious values in the context of education. The case study approach was chosen to provide a more specific and contextual picture of the application of AI in Islamic religious education (Ilhami et al., 2024). In this study, the researcher focused on several universities that have integrated AI technology into the PAI learning process. Case studies allow for a more detailed analysis of AI implementation in educational environments that have unique characteristics and challenges related to spiritual values.

The data sources in this study consist of various primary and secondary sources (Haryono, 2023). Primary data was obtained through in-depth interviews with lecturers, students, and PAI programme administrators who are directly involved in the use of AI. These interviews aimed to explore their perspectives on the benefits, challenges, and impacts of AI use on PAI learning, as well as to understand the extent to which AI can help balance learning efficiency and maintain spiritual integrity. In addition, observations of the learning process using AI were also conducted to obtain a real picture of the dynamics in the classroom. Secondary data was obtained from educational policy documents that regulate the use of technology in learning, including policies that regulate the use of AI in higher education curricula in Indonesia. This data collection technique used semi-structured interviews, participatory observation, and policy document analysis, all of which aimed to obtain valid and relevant data (Raihan, 2017).

The data analysis procedure in this study uses a thematic analysis approach (Sugiyono, 2013). Data obtained from interviews, observations, and document analysis will be analysed systematically to identify the main themes related to the application of AI in Islamic religious education. The sampling technique used is purposive sampling, where research subjects are selected based on specific criteria, namely those who have direct knowledge or experience related to the use of AI in Islamic religious education. These sampling criteria aim to ensure that the data collected comes from relevant sources and can provide in-depth insights. Interviews and observations will be operationalised by designing instruments focused on key topics (Asep, 2018), such as the impact of AI use on learning efficiency and its impact on spiritual integrity. Policy document analysis is conducted by reviewing the content of policies governing the use of technology in Islamic religious education to understand the policy context underlying the application of AI in PAI learning in Indonesia.

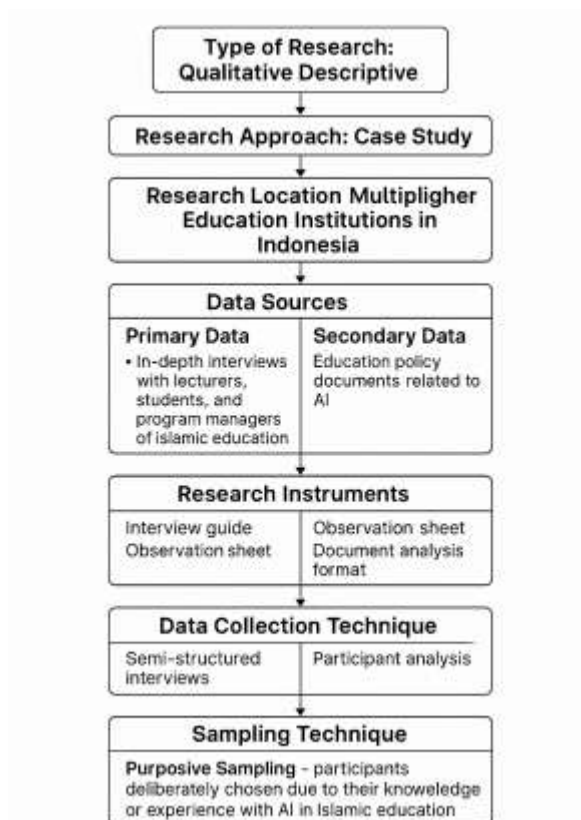


Figure 1. Type of Research

Results and Discussion

Results

This study identifies several key findings related to the application of Artificial Intelligence (AI) technology in Islamic Religious Education (PAI) in Indonesian higher education, which are divided into the following subsections.

1. *Accessibility of Teaching Materials*

One of the main findings of this study is the improvement in the accessibility of teaching materials. AI technology enables access to Islamic religious education materials, such as tafsir, fiqh, and hadith, anytime and anywhere, overcoming time and space constraints. AI-based applications allow students to study religious materials in a more personalised and flexible manner. This supports more effective and adaptive learning tailored to individual student needs (Huda & Suwahyu, 2024). AI applications enable the distribution of educational materials relevant to

local and cultural contexts, thereby enhancing the depth of understanding in Islamic religious education

2. Student Engagement

This study also found that student engagement in AI-based learning increased significantly. Tools such as virtual assistants or AI-based chatbots allow students to receive immediate feedback without waiting for instructions from teachers. AI-based learning models enable more personal and intensive interaction between students and the material, where learning challenges are tailored to the students' ability levels (Bakti et al., 2025). For example, in Al-Qur'an learning, AI applications can help students understand the interpretation and meaning of certain verses with more in-depth contextual explanations. Shows that this active engagement can boost students' confidence and motivate them to delve deeper into Islamic studies.

3. Ethical Risks and Spiritual Integrity

Although AI improves efficiency and student engagement, its use in Islamic education poses serious challenges related to spiritual integrity and ethical values in Islamic teachings. One of the main risks is the potential for misinterpretation of religious teachings. AI cannot fully understand and interpret the spiritual values contained in religious texts such as the Qur'an and Hadith (Ahyani et al., 2021). Therefore, supervision by competent educators is crucial to ensure that AI is used as a tool, not a replacement for the educator's role in conveying spiritual values. Research (Laia et al., 2024) Emphasises that curricula integrating technology must maintain the essence of pure religious teachings, with strict supervision from religious experts.

Table 1. Key Findings of the Study

Key Findings	Description
Accessibility of Teaching Materials	AI increases flexibility in accessing PAI teaching materials, enabling learning anytime, anywhere.
Student Engagement	AI enhances student interaction with the material, providing immediate feedback and more personalised learning.
Ethical Risks and Spiritual Integrity	AI risks changing the interpretation of religious teachings, requiring supervision by educators to ensure the authenticity of teachings.

Overall, this study shows that although AI offers increased efficiency and engagement in PAI learning, ethical and spiritual challenges need to

be addressed through strict supervision and the application of technology in accordance with religious principles.

Discussion

1. The Efficiency of Islamic Religious Education with AI

The application of Artificial Intelligence (AI) in education has opened new possibilities for improving learning efficiency, especially in Islamic religious education. One of the main findings of this study is the increase in the accessibility of teaching materials. AI technology allows learning materials to be presented more flexibly and adaptively, according to the needs of students (Huda & Suwahyu, 2024). For example, using AI-based learning applications, teaching materials related to topics in Islamic religious education, such as tafsir, fiqh, and hadith, can be accessed anytime and anywhere. This is essential in overcoming time and space constraints, as well as providing students with the opportunity to learn in a more personalized way. According to (Spector et al., 2021) AI technology also helps facilitate the distribution of educational content that relies heavily on local and cultural contexts, reinforcing the material's relevance in religious education.

In addition, student engagement in AI-based learning has also seen a significant increase. Tools such as virtual assistants or AI-based chatbots allow students to get feedback directly without having to wait for instructions from the teacher (Noor Komari Pratiwi et al., 2024). AI-based learning models also allow for more personalized and intense interactions between students and materials by providing learning challenges tailored to students' ability levels (Bakti et al., 2025). For example, in learning the Qur'an, AI applications can help students understand the interpretation and meaning of certain verses in more depth, accompanied by contextual explanations. Research by (Ai et al., 2024) Shows that this active involvement boosts students' confidence and increases their motivation to pursue studies in Islam. *'With AI-based applications, we can provide Islamic religious materials to students in a more flexible manner that suits their needs. They can access tafsir, fiqh, and hadith anytime, without being bound by time and place. This allows them to study more deeply and more personally,'* said Dr. Agus Sutyono, a lecturer in Islamic Religious Education at one of the State Islamic Universities in Walisongo, Semarang, Indonesia.

On the other hand, a student also shared her perspective on increased engagement in AI-based learning: *'I feel more confident in studying the Quran because the AI app provides me with deeper explanations of the meaning and interpretations of specific verses. This makes me feel closer to understanding Islam,'* said Putri, a student majoring in Islamic Education.

This quote illustrates how AI enhances the accessibility of educational materials and student engagement in the learning process. However, it is important to note that while AI enhances the learning experience, educators also caution that AI must be used carefully to preserve the authenticity and depth of spiritual values in Islamic religious teachings. As explained by Dr. Agus Sutyono, *'AI is merely a tool; our role as educators remains crucial to ensure that spiritual values are preserved.'*

However, even as accessibility and student engagement increase, the influence of AI on the effectiveness of Islamic religious teaching must be carefully analyzed. On the one hand, AI can make the teaching process more efficient, but on the other. Still, special attention should be paid to the integrity of the spiritual values maintained in Islamic religious education. For example, the use of AI in teaching Islamic religious concepts must consider valid interpretation and understanding, and the potential for misuse of information that could deviate from the pure teachings of Islam must be avoided. Based on research by (Laia et al., 2024) It is important to have a curriculum that integrates technology effectively and maintains the essence of pure religious teachings through the supervision and control of competent educators. This research emphasizes that technology, including AI, should be seen as an aid, not as a substitute for the role of religious teachers in conveying spiritual values.

These post-research findings also reveal that AI in Islamic Religious Education provides new opportunities to overcome challenges in understanding and teaching religion in the digital age. For example, AI can help develop more interactive learning models, allowing students to learn more creatively and in a project-based manner. By using AI technology, students can engage in more personalised and adaptive learning, where AI tailors learning materials to the abilities and needs of individual students (Bakti et al., 2025). With the help of *augmented reality* (AR) and *virtual reality* (VR), students can visit replicas of Islamic holy sites or experience a simulation of Islamic history in a more immersive context. This technology provides a more realistic learning experience and allows students to connect with learning materials in a more profound way, not just through text or classroom discussions.

According to a study by Liu & Chen (2021), this technology has been proven to improve students' understanding of the material, as they can experience a more contextual and in-depth learning experience. This provides students with the opportunity to better understand the historical context of Islam, as well as to explore the deeper meanings of Islamic teachings through more realistic and interactive experiences. The application of this technology in the context of Islamic Education is highly relevant to the objectives of Islamic religious

education, which aim not only to enhance students' cognitive understanding but also to enrich their spiritual experiences. Thus, the integration of AI in Islamic Education not only improves learning efficiency but also helps enrich students' spiritual experiences, giving them the opportunity to experience and understand religious teachings in a more personal and engaged manner.

2. The Importance of Maintaining Spiritual Values in Islamic Religious Education

Applying Artificial Intelligence (AI) in Islamic Religious Education opens up the potential to improve efficiency in teaching. Still, it also challenges maintaining deep spiritual values in religious teachings. One of the impacts that arise is the potential for deviations in the interpretation of religious teachings (Ahyani et al., 2021). Despite being able to analyze big data and provide fast information, AI cannot fully understand and mediate the spiritual values contained in Islamic religious texts, such as the Qur'an and Hadith. According to research by (Khusni et al., 2022) The use of AI in Islamic Religious Education must be used very carefully to ensure that religious interpretations and teachings remain based on the basic principles of Islam that have been agreed upon by religious scholars.

The tension between the efficiency of AI technology and the preservation of spiritual values in Islamic Religious Education (IRE) is often an important topic in technology-based learning. One educator in the field said, *"Although AI allows us to deliver religious material in a more efficient and adaptive way, we must be very careful. This technology cannot fully understand the spiritual context of Islamic teachings. For example, when teaching tafsir or hadith, AI may be able to provide textual explanations, but it cannot delve into the deep spiritual meanings that a teacher interacting directly with students can,"* said Dr. Lutfiyah, a lecturer in Islamic Religious Education at UIN Walisongo Semarang.

A student also responded to this tension from their perspective, stating: *'AI is very helpful in providing quick understanding of tafsir or fiqh, but I feel there is a lack of emotional and spiritual depth that a teacher can provide. We can learn more about the verses of the Quran, but there is no emotional connection formed like when I learn through direct teaching that involves the heart and mind,'* said Ahmad, a student in the Islamic Education department.

Moreover, AI can potentially reduce the emotional and spiritual involvement in direct interactions between teachers and students in Islamic Religious Education. As stated by Kahfi et al. (2024), *"Islamic religious learning is about mastering the material and building a deep spiritual relationship between the student and God"*. According to a study (Tanjung & Suteki, 2024), direct interaction with religious teachers who teach spiritual values is very important in internalizing religious teachings. This reminds us of

the importance of the role of educators in facilitating learning that is not only cognitive, but also contains emotional and spiritual dimensions that cannot be replaced by machines.

To ensure that AI supports the appropriate Islamic religious values, strict supervision from competent religious experts and educators is needed. The first Strategy is to integrate AI systems in a framework built on Islamic scientific guidelines, where religious scholars must examine all AI-based teaching materials and interactions to avoid errors in interpretation. The study by (Wahyuni et al., 2025) shows that the active involvement of educators in supervision and technology-based curriculum can ensure that technology supports the broader goal of religious education, namely, the formation of students' character and spirituality.

The second Strategy is the development of AI in a religious ethics-based Islamic Religious Education. In this case, AI can be developed to recognize and assess teaching content that is not only based on technical data but also pays attention to Islamic teachings' ethical and spiritual values (Zahara et al., 2023). This can be done by including moral and spiritual parameters in AI algorithms used in religious education. As stated by (Annisa et al., 2024), this approach can result in efficient and ethical technology that can support religious learning in a more balanced way between technology and the spiritual values embodied in the teachings of the Islamic religion.

3. Challenges and Obstacles

The use of artificial intelligence (AI) in Islamic Religious Education, although it offers various conveniences and efficiencies, cannot be separated from ethical challenges that must be carefully considered. One of the main ethical issues is the inability of AI to understand the spiritual and moral context contained in religious teachings (Ai et al., 2024). AI technology can only work with data-driven algorithms without the ability to capture the emotional and spiritual values that are so important in religious education. As stated by (Hanna et al., 2025), one of the main challenges is ensuring that AI not only conveys information mechanically but also supports deep understanding and is based on strong religious values. In addition, AI used to facilitate religious learning must be closely monitored not to mislead or damage the essence of Islamic religious teachings.

The negative influence of AI on religious understanding becomes even more evident if this technology is not regulated wisely. One real-life example of the ethical challenges in applying Artificial Intelligence (AI) in Islamic Religious Education (IRE) can be found in a case study at a university in Indonesia, which has begun integrating AI into the teaching of Islamic religious

materials, particularly in the study of tafsir and hadith. The use of AI at this university aims to improve teaching efficiency and provide students with easier access to learning materials that are often difficult to access physically.

However, while AI facilitates access to learning materials, several ethical challenges arise, particularly regarding contextual understanding and the spiritual values embedded in religious teachings. One of the main problems identified is the inability of AI to capture the emotional and spiritual dimensions of Islamic teachings. For example, AI is capable of providing technical explanations of tafsir or hadith, but it cannot explain deeper meanings or guide students to feel the spiritual connection contained in religious texts.

For example, when using AI-based applications to study the interpretation of the Qur'an, AI provides very technical and data-driven explanations, but many students feel that they lack depth of understanding. One student explained, *'AI gives me an accurate explanation of the meaning of the verse, but I feel that I am missing the spiritual touch that I get when learning directly from a teacher who teaches the moral and spiritual values of the verse.'* This highlights the limitations of AI in capturing the emotional and spiritual dimensions that are so important in religious education.

Additionally, research findings reveal that the use of AI without proper oversight can lead to the spread of incorrect interpretations. At this university, although AI applications are used, there is no clear verification mechanism to ensure that all the information provided aligns with authentic Islamic principles. A lecturer explained, *'AI can provide completely incorrect information because the system cannot distinguish between authentic interpretations and those that are inconsistent with Islamic teachings.'* This risks misleading students' understanding of religious teachings, as explained by (Basyit et al., 2024), who emphasise that the lack of strict control over the use of AI in religious education can damage the quality of learning and jeopardise a correct understanding of religion.

In this case, supervision from competent educators and religious scholars is essential. AI technology should be used as a tool, not a replacement for the role of educators in guiding students to understand religious teachings in depth. As a solution, the university has developed a protocol involving religious scholars and experts to verify the religious teaching materials presented by the AI system before they are distributed to students. Thus, AI is only used to support learning, not to replace the spiritual aspects that must be preserved in Islamic religious education.

This case study highlights the importance of maintaining a balance between the efficiency offered by AI and the preservation of deep spiritual values in Islamic religious education. AI, although efficient, still requires

strict regulation and supervision to prevent it from undermining the essence of pure religious teachings.

Furthermore, discussions on regulating AI in Islamic Religious Education should include collaborative efforts between technologists and religious scholars to develop AI-based learning systems that accommodate spiritual aspects (Mulianingsih et al., 2020). For example, developing a learning system that allows the integration of authentic religious texts and supervision by competent religious scholars or educators is one solution to ensure that AI can be used ethically and effectively. According to research (Putra & Hamami, 2023), wise regulation of AI in Islamic Religious Education should involve the establishment of clear ethical guidelines to ensure that these technologies serve not only as an aid but also as a means to strengthen the understanding of true religions.

In addition, sustainability and oversight of the use of AI are essential. Without proper policies and regulations, AI in Islamic Religious Education has the potential to become a tool that threatens the authenticity of teachings and forms a distorted understanding of religion. Therefore, more research needs to be done to explore learning models that incorporate technological excellence without sacrificing the quality of spirituality. Research by (Gil de Zúñiga et al., 2024), emphasizes the importance of educators' training and involvement in overseeing AI applications to guarantee that these technologies truly support the goals of pure and authentic religious learning.

By integrating an Islamic framework and ethics-based AI, the use of technology in Islamic Religious Education can provide maximum benefits. This not only improves the efficiency and accessibility of learning materials but also ensures that the spiritual, moral, and ethical values in Islamic teachings are preserved and strengthened. This approach enables technology to serve as a supportive tool, rather than a replacement, for educators in guiding students toward a deeper and better understanding of their faith.

Table 2. Research Results: Impact, Challenges, and Strategies of AI in Islamic Religious Education

Key Aspect	Research Findings	Additional Notes
Accessibility of Teaching Materials	AI enhances the flexibility and availability of Islamic religious content such as tafsir, fiqh, and hadith.	- Can be accessed anytime and anywhere. - Materials are adapted to local and cultural contexts.
Student Engagement	The use of AI increases student interaction and learning	- Provides immediate feedback.

Key Aspect	Research Findings	Additional Notes
Ethical Risks & Spiritual Integrity	motivation through features like chatbots and virtual assistants.	- Boosts students' confidence in understanding the material.
	AI lacks the ability to comprehend the spiritual and moral essence of Islamic teachings, risking misinterpretation.	- AI is data-driven and lacks emotional or spiritual understanding. - Potential for incorrect or shallow interpretation without educator supervision.
Mitigation Strategies	a. Integrating AI within frameworks based on Islamic principles. b. Developing AI with embedded ethical and spiritual parameters.	- Requires strict supervision from educators and religious scholars. - Curricula should treat AI as a supportive tool, not a replacement for teachers.

Conclusion

The conclusions in this study include three main findings that highlight the importance of using Artificial Intelligence (AI) in Islamic Religious Education (IRE). First, AI has great potential to improve student accessibility and engagement in Islamic religious learning. With this technology, learning materials such as tafsir, fiqh, and hadith can be accessed anytime and anywhere, enabling a more flexible and personalised learning approach for students. AI also facilitates more intensive interaction between students and the material, increasing their engagement in the learning process.

Second, although AI offers efficiency in education, this study emphasises the need for a strong ethical framework to uphold spiritual values in Islamic religious education. Since AI cannot fully understand and convey the spiritual and moral values contained in Islamic teachings, it is crucial to ensure that the use of this technology remains within the bounds of authentic religious principles. Strict supervision by educators and religious scholars is necessary to ensure that the interpretations provided by AI do not deviate from authentic Islamic teachings.

Third, this study highlights the importance of empirical validation in the use of AI for Islamic religious education. Although these findings indicate that AI can improve efficiency and student engagement, further research is needed to empirically evaluate the impact of AI use on students' spiritual understanding, such as in terms of spiritual value retention and strengthening of their religious character. Such evaluations will provide clearer metrics for measuring the success of AI implementation in Islamic religious education.

As a recommendation, further empirical studies are urgently needed to develop a more detailed AI framework that can more specifically measure the effects of using this technology in the context of Islamic religious education. Future research should include more concrete measurements related to the retention of spiritual values and religious understanding resulting from AI-based learning. Thus, while this study provides important insights into the potential of AI in Islamic religious education, more research is needed to strengthen practical applications and develop a solid ethical framework for the implementation of technology in Islamic religious education.

References

- Ahyani, H., Permana, D., & Abduloh, A. Y. (2021). Pendidikan Islam dalam Lingkup Dimensi Sosio Kultural di Era Revolusi Industri 4.0. *Fitrah: Journal of Islamic Education*, 1(2), 273–288. <https://doi.org/10.53802/fitrah.v1i2.20>
- Ai, I., Hadziq, M., Havifah, D. A., & Badriyah, L. (2024). Transformasi Pendidikan Agama Islam di Era Digital : Peran Artificial. *Journal of Islamic Studies*, 5(3), 885–911. <https://doi.org/10.37274/mauriduna.v5i2.1293>
- Aisyah, N. H., Kahfi, N. S., Islam, U., & Walisongo, N. (2025). Integration of Theology and Science and Technology : Transforming Islamic Education Towards the Golden Generation of 2045 Integrasi Teologi dan Ilmu Pengetahuan dan Teknologi (IPTEK): Transformasi Pendidikan Islam Menuju Generasi Emas 2045. *PAKAR Pendidikan*, 23(1), 236–245.
- Annisa, N., Nurdin, N., & Syahid, A. (2024). Integrasi Teknologi dan Kecerdasan Buatan Manusia dalam Meningkatkan Pendidikan Islam. *Prosiding Kajian Islam Dan Integrasi Ilmu Di Era Society 5.0(KIIIES 5.0) Pascasarjana Universitas Islam Negeri Datokarama Palu 2024*, 0, 316–322.
- Asep, K. (2018). *Metodologi Penelitian Pendidikan* (Nita nur M (ed.); 1st ed.). PT Remaja Rosdakarya. <http://repository.syekh nurjati.ac.id/3334/>
- Bakti, S., Hafi, F. B., Nurrohman, A., & Azhar, S. U. (2025). Model Pendidikan Islam di Era Disrupsi: Tantangan dan Upaya untuk Mengejar Ketertinggalan. *Inspirasi Edukatif: Jurnal Pembelajaran Aktif*, 6(1), 156–163.
- 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>
- Begum, S., Muthoifin, & Mahmudulhassan. (2024). Artificial Intelligence in Multicultural Islamic Education: Opportunities, Challenges, and Ethical Considerations. *Solo Universal Journal of Islamic Education and Multiculturalism*, 2(1), 19–26.
- Brynjolfsson, E., & McAfee, A. (2014). *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. W.W. Norton & Company.
- Devita Savitri. (2025). Fix! Coding dan AI Jadi Mata Pelajaran Pilihan Mulai Tahun Ajaran 2025_2026. *Detik.Com*.
- Gil de Zúñiga, H., Goyanes, M., & Durotoye, T. (2024). A Scholarly Definition of Artificial Intelligence (AI): Advancing AI as a Conceptual Framework in Communication Research. *Political Communication*, 41(2), 317–334.
<https://doi.org/10.1080/10584609.2023.2290497>
- Hakim, M. A. R., Kahfi, N. S., Zamzami, A. N., Junaedi, M., Wahib, A., Islam, U., & Walisongo, N. (2025). Aligning Islamic education with the challenges of the Industrial Revolution 4.0: Opportunity or threat? *Inovasi Kurikulum*, 22(1), 43–54.
- Hanna, M. G., Pantanowitz, L., Jackson, B., Palmer, O., Visweswaran, S., Pantanowitz, J., Deebajah, M., & Rashidi, H. H. (2025). Ethical and Bias Considerations in Artificial Intelligence/Machine Learning. *Modern Pathology*, 38(3), 100686.
<https://doi.org/10.1016/j.modpat.2024.100686>
- Haryono, E. (2023). Metodologi penelitian kualitatif di Perguruan Tinggi Keagamaan Islam. *E-Journal an-Nuur: The Journal of Islamic Studies*, 13, 1–6.
- Huda, M., & Suwahyu, I. (2024). Peran Artificial Intelligence (AI) dalam Pembelajaran Pendidikan Agama Islam. *REFRENSI ISLAMIKA: Jurnal Studi Islam*, 2(2), 53–61.
- Ilhami, M. W., Vera Nurfajriani, W., Mahendra, A., Sirodj, R. A., & Afgani, W. (2024). Penerapan Metode Studi Kasus Dalam Penelitian Kualitatif. *Jurnal Ilmiah Wahana Pendidikan*, 10(9), 462–469.

- Kahfi, N. S., Junaedi, M., & Wahib, A. (2024). The Role Of Islamic Religious Education And Religious Moderation In Facing Challenges In Social Media. *Jurnal Pendidikan Dan Pembelajaran (JPP)*, 6, 33–43.
- Karagkouni, E., & Sotiropoulou, P. (2023). Artificial Intelligence in Education: Ethical Considerations. *Jurnal ICERI*, 1(December), 2862–2866. <https://doi.org/10.21125/iceri.2023.0742>
- Khusni, R., Kurniawan, A., & Wijaya, D. A. (2022). The Impact of Artificial Intelligence on Learning, Teaching, and Education. *Luxembourg: Publications Office of the European ...*, 1(25), 79–92. <https://doi.org/10.2760/12297>
- Laia, S., Lase, S., Gulo, K. K., & Novalia, L. (2024). Pendidikan Agama Kristen Serta Kurikulumnya Dalam Menanggapi AI. *Jurnal Pendidikan Kristiani Dan Kateketik Katolik*, 1(4).
- Liu, C. X., & Chen, L. L. (2021). Enhancing Experiential Learning with AR/VR Technology in Religious Education. *Journal of Educational Technology & Society*, 4(24), 49–59. <https://doi.org/10.1016/j.molcel.2021.09.023>
- Miles, M. B., Huberman, A. M., & Saldana, J. (1994). *Qualitative Data Analysis: A Methods Sourcebook* (H. Salmon (ed.); 3rd ed.). United States of America Library.
- Mulianingsih, F., Anwar, K., Shintasiwi, F. A., & Rahma, A. J. (2020). Artificial Intellegence Dengan Pembentukan Nilai Dan Karakter Di Bidang Pendidikan. *IJTIMAIYA: Journal of Social Science Teaching*, 4(2), 148. <https://doi.org/10.21043/ji.v4i2.8625>
- Noor Komari Pratiwi, Bambang Yulianto, Mintowati, M., Haris Supratno, Syamsul Sodik, & Mulyono, M. (2024). Persepsi Mahasiswa terhadap Penggunaan Chatgpt: Peluang dan Tantangan bagi Pembelajaran Bahasa Indonesia sebagai Mata Kuliah Wajib pada Kurikulum Perguruan Tinggi. *Jurnal Onoma: Pendidikan, Bahasa, Dan Sastra*, 10(3), 2727–2742. <https://doi.org/10.30605/onoma.v10i3.3931>
- Putra, F. P., & Hamami, T. (2023). Pengembangan Tujuan Kurikulum Pendidikan Agama Islam di Indonesia. *Jurnal At-Ta'dib*, 15(1), 17–30.
- Rafliyanto, M., & Mukhlis, F. (2023). Pengembangan Inovasi Pembelajaran Pada Mata Pelajaran Pendidikan Agama Islam Di Lembaga Pendidikan Formal. *Jurnal Tarbiyatuna: Kajian Pendidikan Islam*, 7(1), 121. <https://doi.org/10.69552/tarbiyatuna.v7i1.1853>

- Raihan. (2017). Metodologi penelitian. *Universitas Islam Jakarta*, 1–186.
- Shodiq, S. F. (2019). Revival Tujuan Pembelajaran Pendidikan Agama Islam (Pai) Di Era Revolusi Industri 4.0. *At-Tajdid : Jurnal Pendidikan Dan Pemikiran Islam*, 2(02), 216–225. <https://doi.org/10.24127/att.v2i02.870>
- Siemens, G., Onderwijsdagen, S., Age, D., Design, E., Downes, S., & Verhagen, P. (2019). Connectivism : A New learning Theory for the Digital Age. *Journal of Instructional Technology and Distance Learning*, 2(1), 1–5. <http://elearning.surf.nl/e-learning/english/3793>
- Spector, J. M., Lockee, B. B., & Childress, M. D. (2021). *Learning, Design, and Technology: An International Compendium of Theory, Research, Practice, and Policy*. Springer.
- Sugiyono. (2013). *Metode Penelitian Kuantitatif Kualitatif dan R&D* (p.). Alfabeta.
- Tanjung, D. F., & Suteki. (2024). Peran Kecerdasan Buatan (Artificial Intelligence) Dalam Pendidikan Agama Islam. *JURNAL ABSHAR: Jurnal Hukum Keluarga Islam, Pendidikan, Kajian Islam Dan Humaniora*, 4, 21–26. <https://ojs.staisamorapematangsiantar.ac.id/index.php/samora/article/view/67>
- Wahyuni, A. eki dwi, Yaumi, M., Arsyad, A., & Husain, S. (2025). Integrasi Artificial Intelligence dalam Pembelajaran Pendidikan Agama Islam. *Indo-MathEdu Intellectuals Journal*, 6(1), 1271–1280.
- Zahara, S. L., Azkia, Z. U., & Chusni, M. M. (2023). Implementasi Teknologi Artificial Intelligence (AI) dalam Bidang Pendidikan. *Jurnal Penelitian Sains Dan Pendidikan (JPSP)*, 3(1), 15–20. <https://doi.org/10.23971/jpsp.v3i1.4022>