Journal of Islamic Education Research | Vol. 6 No. 02 (2025)
Available online at: https://jier.uinkhas.ac.id/index.php/jier
e-ISSN: 2716-0998
p-ISSN: 2716-1005

The Integration of Artificial Intelligence as a Teacher's Partner in Islamic Religious Education Learning

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Article History:
Received:
March 1, 2025
Revised:
March 28, 2025
Accepted:
April 5, 2025
Published:
April 5, 2025

Keywords:
Artificial Intelligence, Islamic Religious Education, Personalized Learning, Ethical AI, Digital Literacy

Abstract: *The rapid advancement of AI has transformed various sectors, including education. In Islamic Religious Education (Pendidikan Agama Islam / PAI), AI has the potential to enhance effectiveness and inclusiveness through personalized learning, task automation, and active interaction. However, challenges such as low digital literacy, limited infrastructure, and ethical issues remain obstacles. This study aims to examine the role of AI as a teacher's partner in Islamic Religious Education and to analyze its opportunities and challenges. Using a qualitative approach, this research employs a literature review method by analyzing previous studies and relevant sources on AI implementation in education, particularly in the PAI context. The findings indicate that AI can support teachers by automating assessments, providing adaptive learning content, and facilitating immersive learning experiences through virtual and augmented reality. However, effective implementation requires digital literacy training for educators, improved infrastructure, and the development of ethical policies. These findings highlight the need for collaboration among governments, educational institutions, and technology developers to ensure AI integration aligns with Islamic values and enhances both cognitive and character development in students.*

Abstrak: Kemajuan pesat AI telah mengubah berbagai sektor, termasuk pendidikan. Dalam PAI, AI berpotensi meningkatkan efektivitas dan inklusivitas melalui pembelajaran personal, otomatisasi tugas, dan interaksi aktif. Namun, tantangan seperti rendahnya literasi digital, keterbatasan infrastruktur, dan isu etika masih menjadi hambatan. Penelitian ini bertujuan untuk mengkaji peran AI sebagai mitra guru dalam Pendidikan Agama Islam serta menganalisis peluang dan tantangannya. Dengan pendekatan kualitatif, penelitian ini menggunakan metode tinjauan pustaka dengan menganalisis berbagai studi sebelumnya dan sumber relevan mengenai penerapan AI dalam pendidikan, khususnya dalam konteks PAI. Hasil penelitian menunjukkan bahwa AI dapat mendukung guru dalam mengotomatisasi penilaian, menyediakan konten pembelajaran adaptif, serta memfasilitasi pengalaman belajar yang lebih mendalam melalui teknologi realitas virtual dan augmented. Namun, penerapan AI yang efektif memerlukan pelatihan literasi digital bagi pendidik, peningkatan infrastruktur, serta pengembangan kebijakan etis. Temuan ini menegaskan pentingnya kolaborasi antara pemerintah, lembaga pendidikan, dan pengembang teknologi untuk memastikan integrasi AI sejalan dengan nilai-nilai Islam serta mampu meningkatkan aspek kognitif dan karakter peserta didik.

Please cite this article in APA style as:
Nun, Luluk Ilma'; Mohtarom, Ali; Marzuki, Ahmad; and Lawal, Uthman Shehu. (2025). The Integration of Artificial Intelligence as a Teacher's Partner in Islamic Religious Education Learning. *Journal of Islamic Education Research, 6 (2)*, 145–162; doi: https://doi.org/10.35719/jier.v6i2.473

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INTRODUCTION

Advancements in technology during the digital era have led to significant transformations across various aspects of life, including education. One of the most influential innovations is the application of Artificial Intelligence (AI), which can support teaching effectively, personally, and adaptively (Yahya, 2023; Chen et al., 2020; Gligorea et al., 2023; Sajja et al., 2024). In the context of Islamic Religious Education, AI can serve as a strategic partner for teachers in designing materials aligned with students' needs, accelerating the evaluation process, and providing a more interactive learning experience (Hadziq et al., 2024). However, despite these advancements, the integration of AI into Islamic Religious Education still faces numerous challenges, including digital literacy gaps among educators, ethical concerns, and infrastructural limitations (Hastuty et al., 2025; Achruh et al., 2024; Taufik & Rindaningsih, 2024). These gaps highlight the need for further research on how AI can be effectively adopted in Islamic Religious Education to bridge these barriers while maintaining the integrity of religious education.

The role of AI in education has been widely discussed in previous studies, particularly regarding its potential to personalize learning experiences and optimize administrative efficiency. For example, research by Hilmi & Hasaniyah (2023), Kim et al., (2022), and Ahmad et al., (2022), demonstrates how AI can analyze students' learning patterns and provide personalized feedback, allowing teachers to focus more on pedagogical aspects rather than administrative burdens. Similarly, Ocampo & Gozum (2024), Kadir et al., (2023), and Almusaed et al., (2023), examine how AI-powered chatbots facilitate student engagement by offering instant responses to queries, thereby improving learning efficiency. These studies underscore AI's potential to revolutionize education by making learning more adaptive and student-centered.

Other studies have explored the application of AI in various contexts of Islamic education in Indonesia. Qomaruzzaman (2024) discusses AI as a teaching assistant in PAI, while Taufiq et al. (2024) highlight the efficiency of AI-based learning. Meanwhile, Sholehah & Rachman (2023) emphasize AI's role in enhancing students' religious understanding, and Sukmawati (2024) examines its potential to improve Qur'an learning efficiency. Additionally, Kisno et al. (2023) explore AI's influence on creativity in Early Childhood Islamic Education, demonstrating its role in fostering innovation among young learners.

Muchlis (2025) provides a broader perspective on the general benefits and challenges of AI in Islamic Religious Education. Sulaeman et al. (2024) analyze AI's contribution to improving student's writing skills, while Najib & Darnoto (2024) discuss challenges faced by teachers, such as digital literacy, infrastructure limitations, and ethical concerns. Furthermore, Hadziq et al. (2024) highlight AI's function in reinforcing Islamic principles through digital transformation in religious education. These studies contribute to a growing body of literature that recognizes both the opportunities and challenges of AI integration in Islamic education.

Despite the significant contributions of these studies, they primarily focus on AI's technical applications rather than its strategic role in fostering a holistic and values-based approach to Islamic Religious Education. This study seeks to address

this gap by positioning AI not merely as a supplementary tool but as an essential partner in integrating Islamic values into the learning process. By doing so, this research offers a novel perspective on AI's potential to shape religious education in a way that aligns with both technological advancements and ethical considerations.

The novelty of this study lies in its exploration of AI's role in Islamic Religious Education beyond technical aspects, emphasizing the integration of Islamic values in learning. Unlike previous studies that predominantly discuss AI's efficiency and effectiveness, this research delves into the ways AI can actively collaborate with teachers to create an adaptive, inclusive, and character-based educational environment. This study proposes that AI should not only assist in instructional tasks but also play a crucial role in reinforcing moral and ethical teachings in Islamic education.

Furthermore, this research introduces practical strategies to address existing challenges in AI adoption for Islamic Religious Education. It highlights the importance of enhancing teachers' digital literacy to ensure they can effectively utilize AI tools in their pedagogical practices. Additionally, it emphasizes the need for well-defined ethical guidelines to mitigate concerns related to data privacy, bias, and the potential misrepresentation of religious concepts. Infrastructure development is also crucial to ensure equitable access to AI-driven educational tools, particularly in regions with limited technological resources.

This study argues that AI should be perceived as a transformative force in Islamic Religious Education, enabling educators to deliver more engaging, interactive, and values-driven lessons. By integrating AI thoughtfully, Islamic education can maintain its traditional essence while embracing modern technological advancements. The research underscores the importance of a balanced approach that leverages AI's capabilities while preserving the core spiritual and ethical dimensions of Islamic teachings.

The findings of this research are expected to have significant implications for policymakers, educators, and technology developers involved in Islamic education. By providing insights into AI's strategic role in Islamic Religious Education, this study aims to inform policy decisions that support the ethical and effective integration of AI in religious education. Additionally, it offers practical recommendations for curriculum development, teacher training, and technological infrastructure improvements.

Ultimately, this study highlights the importance of reimagining Islamic education in the digital era. As AI continues to evolve, its role in shaping religious learning will become increasingly crucial. By addressing existing challenges and proposing sustainable solutions, this research contributes to the ongoing discourse on how technology can enhance, rather than replace, the fundamental values of Islamic education. Through this approach, AI can serve not only as a supportive tool but also as a key driver of educational transformation in the 21st century.

METHOD

This study employs a qualitative descriptive approach using a literature review method to analyze the integration of Artificial Intelligence (AI) as a teacher's partner in Islamic Religious Education learning. Data were gathered from various credible sources, including scientific articles, academic journals, and documents related to the application of AI in Islamic education (Lichtman, 2023; Hatch, 2023). The research follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to ensure a rigorous and transparent review process (Parums, 2021; Sarkis-Onofre et al., 2021). Data were collected from reputable academic databases such as Scopus, Web of Science, and Google Scholar, focusing on peer-reviewed journal articles, conference proceedings, and authoritative reports related to AI implementation in education and Islamic studies.

Data collection was conducted using documentation techniques, focusing on literature relevant to the research topic. The inclusion criteria consisted of publications from the last ten years (2014–2024), studies explicitly discussing AI in education with a focus on Islamic contexts, and articles available in English and Bahasa Indonesia. Studies that lacked empirical evidence, were not peer-reviewed, or did not address AI integration in Islamic Religious Education were excluded. The selection process involved title and abstract screening, followed by a full-text review to ensure relevance to the research objectives.

Data analysis was conducted using the Miles and Huberman model, which involves three key stages: data reduction, data display, and conclusion drawing (Miles et al., 2014). Additionally, thematic analysis was employed to identify key themes, patterns, and relationships among concepts emerging from the reviewed literature. This analysis was conducted iteratively, following Braun & Clarke's (2006) six-phase framework: (1) familiarization with data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the final report (Byrne, 2022). The thematic analysis allowed for an in-depth exploration of AI's role in Islamic Religious Education, focusing on its potential to personalize learning, enhance interactivity, and integrate Islamic values into the educational process.

To ensure data validity, this study employed source triangulation by comparing data from multiple sources, including journal articles, conference proceedings, and government reports (Creswell, 2014). Additionally, researcher reflexivity was applied to minimize bias by critically evaluating interpretations and ensuring that conclusions were grounded in robust evidence.

By adopting this methodological approach, the study provides a comprehensive and systematic analysis of AI's integration as a teacher's partner in PAI learning. This research contributes to the growing discourse on AI in education, offering practical insights for educators, policymakers, and technology developers in shaping future AI-driven pedagogical strategies within Islamic education.

RESULT AND DISCUSSION

RESULT

The integration of Artificial Intelligence (AI) in Islamic Religious Education has shown significant advantages in enhancing the effectiveness, efficiency, and inclusiveness of the learning process. Based on data gathered from various credible sources, AI serves as a strategic partner for educators in instructional design, evaluation optimization, and character development aligned with Islamic values. The main findings of this research are as follows:

Benefits of AI in Islamic Religious Education Learning

The incorporation of AI in Islamic Religious Education has proven to enhance the effectiveness and efficiency of teaching and learning. AI enables personalized learning by tailoring instructional content to match students' comprehension levels and learning speeds. Additionally, AI-based systems recommend supplementary materials based on individual performance, allowing teachers to focus their attention on students who require additional support. AI-powered adaptive learning platforms enable students to access customized lesson plans and receive targeted feedback based on their progress, ensuring optimized learning experiences. By leveraging AI, teachers can reduce the time spent on administrative tasks and focus more on fostering critical thinking and engagement within the classroom.

Improving Accessibility and Inclusivity

AI provides greater access to learning materials, particularly for students in remote areas and those with special needs. Features such as text-to-speech, adjustable text sizes, and multilingual support enhance accessibility, ensuring equal learning opportunities for all students, regardless of their socioeconomic backgrounds or physical limitations. AI-powered reading assistants help visually impaired students access religious texts more efficiently, while speech recognition tools assist students with different learning needs. These technologies not only improve inclusivity but also empower students by offering customized educational pathways tailored to their unique requirements.

AI as a Strategic Partner for Teachers

AI acts as a supportive tool that suggests instructional materials, provides automated feedback, and helps refine teaching methodologies based on student responses. This enables teachers to devote more time to developing students' social, emotional, and spiritual competencies, which are crucial elements of Islamic Religious Education. AI-based analytics track student progress, allowing teachers to customize teaching strategies to address diverse learning needs effectively. With AI-generated insights, educators can identify learning gaps, adjust their teaching methods accordingly, and provide more meaningful interventions to support students' academic and spiritual growth.

Integration of Islamic Values

AI technologies can be programmed to reinforce Islamic teachings, including morality, tolerance, and moderation. AI-based tools are increasingly used for

interactive Qur'an memorization, tajweed instruction, and fiqh learning through gamification and virtual simulations, making religious education more engaging and effective. AI-assisted Qur'an learning applications enhance pronunciation accuracy and memorization techniques by providing real-time feedback and personalized learning experiences. Through AI-driven ethical analysis, students can engage in discussions on contemporary moral dilemmas while aligning their perspectives with Islamic values.

Challenges in AI Implementation

Despite its benefits, AI adoption in Islamic Religious Education encounters several challenges, including low digital literacy among teachers, limited technological infrastructure in specific regions, and ethical concerns such as data privacy and algorithmic biases. These challenges must be addressed to ensure AI's responsible and effective integration. Some educational institutions face difficulties in implementing AI due to a lack of internet connectivity and inadequate teacher training programs. Additionally, concerns over AI-generated religious interpretations require careful oversight to ensure the content aligns with established theological principles.

Effective AI Implementation Strategies

To maximize AI's potential in Islamic education, structured training programs for teachers on AI literacy and its pedagogical applications are essential. Additionally, ensuring adequate technological infrastructure and establishing ethical guidelines for AI use in education can contribute to more seamless integration. AI literacy training programs are being introduced to help Islamic education teachers integrate AI into their teaching methodologies effectively. By embedding AI education into teacher professional development, educators gain the necessary skills to harness AI's full potential while mitigating associated risks.

AI in Developing 21st-Century Skills

AI fosters essential 21st-century skills such as critical thinking, collaboration, creativity, and communication. Through AI-driven learning platforms, students can engage in virtual teamwork, problem-solving tasks, and project-based learning, preparing them for future challenges in both academic and professional environments. AI-driven discussion platforms encourage students to develop critical thinking and ethical decision-making skills through interactive learning sessions. These platforms facilitate dialogue on complex ethical issues, helping students bridge Islamic teachings with contemporary societal challenges.

Character Building of Students

AI plays a role in strengthening students' moral and ethical development by facilitating personalized learning programs that emphasize Islamic values. Automated feedback mechanisms further encourage self-reflection and character growth, ensuring that students not only gain knowledge but also develop strong ethical and religious foundations. AI-driven reflection journals help students analyze their behavior and improve their moral conduct through structured self-assessment exercises. These digital tools guide students in recognizing their strengths and areas for improvement while reinforcing core Islamic virtues.

Efficiency in Evaluation and Interactive Learning Potential

AI streamlines the assessment process by automating evaluations, delivering real-time feedback, and offering insights into student progress. Moreover, interactive technologies such as Augmented Reality (AR) and Virtual Reality (VR) create immersive learning experiences that enhance student engagement and comprehension. Virtual reality prayer simulation software allows students to practice religious rituals in a highly interactive and engaging way. By participating in these simulations, students gain a deeper understanding of religious practices, bridging theoretical knowledge with experiential learning.

Long-Term Impact

The long-term integration of AI in Islamic Religious Education is expected to produce well-rounded graduates who excel academically while upholding strong Islamic character. Additionally, AI fosters self-directed learning, allowing students to cultivate independent learning habits that will benefit them beyond formal education. AI-driven self-learning applications are being adopted to promote independent religious studies, enabling students to explore Islamic teachings at their own pace. This fosters a culture of lifelong learning where students remain actively engaged in deepening their understanding of Islamic knowledge well beyond the classroom.

These findings highlight the transformative role AI plays in modern Islamic education, positioning it as a crucial tool for fostering innovation, inclusivity, and academic excellence while preserving and enhancing Islamic values. More importantly, this study introduces a novel perspective by emphasizing AI not merely as a tool but as a strategic educational partner that actively facilitates Islamic character formation and value-based learning. Unlike previous studies that primarily focus on AI's technical benefits, this research underscores the integration of AI into the moral and ethical dimensions of Islamic education. By leveraging AI's capabilities to provide contextualized religious instruction, personalized guidance, and interactive learning experiences, this study contributes to the ongoing discourse on the role of technology in faith-based education. The findings also offer actionable strategies for educational institutions to harness AI's potential effectively while mitigating challenges, ensuring a balanced and holistic approach to AI-driven Islamic learning.

DISCUSSION

AI as a Transformation in Islamic Religious Education Learning

The integration of AI into Islamic Religious Education marks a significant transformation in the pedagogical landscape. Amidst the rapid advancement of digital technology, the urgency for religious education to adapt becomes increasingly evident. As noted by Rane et al., (2023) and Chen & Perez (2023), AI enables a more dynamic and personalized learning experience, addressing individual learners' needs in terms of comprehension levels and learning speeds. These capabilities are aligned with 21st-century educational demands, which emphasize flexibility, accessibility, and learner autonomy. The findings of this study reinforce this theoretical foundation by revealing how AI not only enhances the effectiveness and efficiency of instructional delivery but also expands inclusivity. AI-

powered adaptive learning platforms, for instance, provide real-time feedback and curated supplementary materials based on student performance, thus enabling differentiated instruction. This reflects the theoretical premise that technology, when integrated meaningfully, acts as a facilitator of equity in learning outcomes.

In line with Ahmad et al., (2022), and George & Wooden (2023), the research further supports the claim that AI reduces the administrative burdens traditionally borne by educators, such as grading and report generation. This automation allows teachers to refocus their efforts on more substantial pedagogical tasks, such as cultivating students' social, emotional, and spiritual competencies, which are core to Islamic education. The data show that AI-based analytics assist teachers in monitoring student progress, identifying learning gaps, and tailoring interventions, practices which elevate teaching from routine instruction to targeted mentorship.

The integration of AI in Islamic Religious Education is not merely a technological advancement but a transformative force that aligns with and enhances Islamic values. Through interactive tools for Qur'an memorization, tajweed, and fiqh, as well as AI-driven ethical analysis applications, AI fosters a more engaging, morally grounded, and context-sensitive learning experience. It moves beyond being a neutral aid to becoming a strategic educational partner that supports character development, spiritual growth, and value-based learning via personalized instruction and automated feedback. However, challenges such as digital literacy gaps, inadequate infrastructure, and ethical concerns about data use remain significant. Addressing these, the study advocates for teacher training and ethical guidelines to ensure responsible AI implementation. Ultimately, AI serves not just as an educational tool but as a catalyst for reform, redefining Islamic education through personalized, inclusive, and ethically conscious learning.

The Potential of AI in Interactive Learning

The course is set, and AI is increasingly recognized as a transformative force in higher education. As Lang (2023) and Gifari (2024) observes, AI is reshaping the landscape from institutional decision-making to pedagogical practices. In Islamic Religious Education, this transformation signals not just an operational shift, but a pedagogical reorientation toward more interactive, personalized, and immersive learning models. Immediate adaptation becomes not only beneficial but essential, institutions that delay integrating AI risk falling behind in educational relevance and student engagement.

The potential of AI to enhance learner interactivity is among its most promising contributions. Yetişensoy & Karaduman (2024), and Rehman & Hussain (2024) emphasize the effectiveness of AI-powered chatbots in providing instant responses to students' inquiries. This real-time interaction addresses a crucial pedagogical gap, the limited availability of instructors to provide continuous support. The findings of this study confirm that chatbots, beyond their technical function, serve as digital companions that sustain students' curiosity and engagement throughout the learning process. More than just answering questions, these tools can offer personalized quizzes or formative exercises, helping to reinforce key concepts in Islamic studies based on each student's performance data.

The integration of Augmented Reality (AR) and Virtual Reality (VR) enhances the interactive dimension of AI in Islamic Religious Education by enabling immersive experiences that simulate religious, historical, and cultural contexts, such as virtual explorations of the Kaaba or key Islamic events, making abstract teachings more vivid and memorable. Grounded in constructivist learning theory, these technologies foster deeper understanding and affective engagement, increasing student motivation and comprehension through dynamic, student-centered interfaces. By translating complex theological concepts into experiential, gamified, and visually rich forms, AI reshapes the traditional student-teacher-content relationship, transforming Islamic education into a more intellectually stimulating and spiritually resonant experience. This evolution positions AI not merely as a technological upgrade but as a pedagogical innovation that strengthens core Islamic teachings while nurturing ethical reflection and spiritual insight.

The Strategic Role of AI in Enhancing Learning Effectiveness

One of the most transformative contributions of AI in Islamic Religious Education is its ability to expand accessibility and inclusivity, especially for students in marginalized or underserved contexts. As emphasized by Sayed et al., (2023) and Soelistiono (2023), AI-based learning platforms enable students to engage with educational materials flexibly. This flexibility is particularly impactful in Islamic education, where access to qualified teachers and standardized materials is often limited in remote or rural areas. The findings of this study affirm that AI is not only improving learning effectiveness, but also promoting educational justice. By removing geographical and physical barriers, AI allows students from diverse backgrounds to access the same high-quality Islamic learning resources. This supports the broader goal of making Islamic education more equitable, a vision deeply rooted in Islamic principles of fairness (*'adl*) and social responsibility.

Furthermore, AI technologies demonstrate strategic value in supporting students with special needs. As highlighted by Sholehah and Rachman (2023), and Trivedi & Bindewari (2025), features such as enlarged fonts, high-contrast displays, and text-to-speech engines make content accessible to visually impaired learners. The study reinforces this theoretical perspective by showing how AI-powered assistive tools, including voice recognition and multilingual support, allow students with various physical and cognitive challenges to fully participate in learning activities. These features go beyond mere accommodation, they reflect a paradigm shift toward personalized, inclusive pedagogy. AI does not treat inclusivity as an afterthought; rather, it is embedded into the design of intelligent learning systems. By analyzing students' interaction patterns and adapting content in real-time, AI platforms ensure that each learner receives instruction that aligns with their individual capabilities and preferences.

In this way, AI serves as more than a tool for efficiency, it becomes a strategic partner in fulfilling the Islamic educational mission of *rahmatan lil 'alamin* (a mercy for all creation), ensuring that no learner is left behind. The technological interventions enabled by AI embody the spirit of *ta'lim* and *tarbiyah*, offering personalized pathways for knowledge acquisition while affirming the dignity and potential of every student. The integration of AI into Islamic Religious Education is not simply a matter of modernization, but a commitment to inclusivity, compassion,

and excellence. By enhancing accessibility and providing equitable learning opportunities, AI contributes to a more just and effective educational system that reflects both contemporary demands and enduring Islamic values.

Opportunities and Challenges in AI Implementation

While AI holds transformative potential for Islamic Religious Education, its implementation involves complex challenges that extend beyond technology to include pedagogical, ethical, and structural dimensions. One major barrier is the low digital literacy among educators, particularly those with limited exposure to educational technology. As highlighted by Najib & Darnoto (2024) and Filiz et al. (2025), the lack of teacher training in digital pedagogy hinders effective AI integration. Without strategic investment in professional development, even the most sophisticated AI tools cannot reach their full educational impact. In parallel, infrastructure limitations, such as outdated devices, poor internet access, and the absence of digital platforms, continue to obstruct equitable access to AI-enhanced learning, echoing concerns from Muchlis (2025) and Ferri et al. (2020) about the risk of deepening the digital divide.

Ethical considerations also emerge as critical in AI adoption. Personalization through AI often requires the collection of sensitive student data, which, without strong safeguards, may lead to misuse or breaches. The study aligns with Sulaeman et al. (2024) in emphasizing the need for Shariah-aligned data protection policies that uphold student dignity (hurmat al-insan). Additionally, concerns about algorithmic bias and lack of transparency, as noted by Ntoutsi et al. (2020), highlight the risk of misrepresenting student abilities or delivering culturally insensitive content. Addressing these issues demands the involvement of Islamic scholars, educators, and technologists to ensure AI systems are ethically sound and reflective of Islamic educational values.

Another subtle but important concern is the potential over-reliance on AI, which may reduce students' capacity for critical thinking, independent reasoning, and spiritual reflection—core elements in Islamic pedagogy. AI must be seen not as a replacement for educators, but as a mushrif ta'lim (instructional companion) that enhances human interaction and supports the cultivation of adab (ethics), tadabbur (reflection), and tazkiyah (character purification). Ultimately, meaningful integration of AI in Islamic education requires a holistic approach: building teacher capacity, upgrading infrastructure, enforcing ethical frameworks, and designing AI tools rooted in Islamic values. Only through this multifaceted readiness can AI fulfill its promise as a true strategic partner in shaping the future of Islamic education.

Strategies to Overcome AI Implementation Challenges

The successful integration of AI in Islamic Religious Education hinges not only on recognizing its benefits and risks, but also on the institutional capacity to respond strategically to emerging challenges. This study highlights several actionable strategies to bridge the gap between technological potential and practical implementation. The first and arguably most foundational strategy is the improvement of digital literacy among educators. As affirmed by Southworth (2023), targeted professional development programs focused on AI literacy are essential. These training initiatives should not only introduce teachers to AI tools,

but also help them understand AI's underlying logic, its pedagogical applications, and its limitations. The data supports the notion that teachers who are equipped with such knowledge are better prepared to integrate AI meaningfully into their instructional design, creating student-centered, adaptive, and ethical learning environments. Moreover, digital training in Islamic education must go beyond technical competence. It should include Islamic ethical frameworks for evaluating and using technology, empowering educators to act as *murabbi digital* (digital mentors) who can guide students in navigating AI-based learning critically and conscientiously.

The research underscores the urgent need to strengthen technological infrastructure. According to Alam & Mohanty (2023), the availability of adequate hardware (such as laptops, tablets, or interactive whiteboards), reliable internet access, and responsive technical support are prerequisites for the seamless operation of AI platforms. These infrastructural improvements must be equitably distributed, especially to Islamic educational institutions in remote or under-resourced regions, to prevent deepening the digital divide. Ensuring such equity reflects the Islamic value of *musawah* (equality), reaffirming that technological advancement must serve the ummah inclusively.

Another key strategy in AI implementation for Islamic Religious Education is the development of clear and comprehensive ethical policies through a collaborative approach involving Islamic ethicists, educators, policymakers, and software engineers. This ensures that policies are not only legally robust but also grounded in Islamic moral principles, particularly the sanctity of personal data (*hurmat al-ma'lumat al-shakhsiyyah*). Ethical guidelines must cover data privacy, consent, algorithmic fairness, and accountability, while reinforcing the educational intent of AI—to enhance, not undermine, the spiritual and humanistic goals of Islamic learning. The study also advocates for a "human-in-the-loop" model, where AI functions as a support system rather than a replacement for educators, preserving the essential role of teachers in nurturing *adab*, *akhlak*, and *ruhaniyah*, aspects no algorithm can replicate. Addressing the challenges of AI adoption thus requires a holistic strategy: empowering teachers, strengthening infrastructure, and embedding Islamic ethics into policy design. When treated as part of a broader educational ecosystem, AI can truly support the comprehensive development of learners (spiritually, intellectually, and socially).

Integrating Islamic Values into AI Technology

The integration of Islamic values into AI technology is not a peripheral concern but a foundational imperative to ensure that digital innovation in Islamic Religious Education remains aligned with its spiritual and moral mission. As this study highlights, AI in education must go beyond technical efficiency to become ethically grounded and value-driven, reflecting the principles of *ta'dib*, *tarbiyah*, and *ta'lim*. Hadziq et al. (2024) and Budiman et al. (2025) stress the need for AI systems to embody Islamic values such as *akhlaq al-karimah* (noble character), *tasamuh* (tolerance), and *wasatiyyah* (moderation). In line with these findings, AI-based learning platforms can serve not only as tools for knowledge transmission but also as media for value internalization, incorporating reflective prompts, moral decision-making simulations, and ethical scenarios rooted in Islamic teachings. This

approach helps prevent the cultural neutrality or secular bias often embedded in mainstream technologies and ensures that AI contributes to the cultivation of spiritual intelligence (*ruhiyyah*), not just technical skills.

The study also demonstrates the practical benefits of AI in teaching core Islamic subjects such as *tahfidz al-Qur'an*, *tajwid*, *fiqh*, and *sirah nabawiyyah*. AI-powered applications that employ gamification, speech recognition, and virtual simulations have been shown to boost student motivation, engagement, and retention. These tools support the theory that affective engagement is critical for meaningful and lasting learning, especially in religious contexts. For example, gamified memorization apps offer personalized feedback and rewards that sustain interest among digital-native learners. Similarly, immersive VR experiences that depict episodes from the Prophet's life or the evolution of Islamic jurisprudence provide a multi-sensory, emotionally resonant way of exploring religious content. However, the study cautions that such implementations must be guided by scholars of Islamic education and ethics. Without careful curation, AI content may inadvertently carry cultural biases or interpretations that conflict with Islamic teachings.

Ultimately, the value of AI in Islamic Religious Education lies in its potential to amplify (rather than replace) the prophetic model of teaching, which centers on *hikmah* (wisdom), *rahmah* (compassion), and moral accountability. When technological innovation is guided by Islamic ethical frameworks, educators and developers can create AI tools that genuinely support the development of *insan kamil* (a holistic human being). In doing so, AI becomes not just a pedagogical aid but a spiritually resonant and socially transformative force, capable of enhancing both the intellectual and moral dimensions of Islamic learning.

AI in Developing 21st-Century Skills

In the context of Islamic Religious Education, the integration of AI presents both a pedagogical innovation and a strategic avenue for cultivating essential 21st-century skills. As noted by Muthmainnah et al., (2022), and Thornhill-Miller et al., (2023), AI supports the development of competencies such as critical thinking, creativity, collaboration, and communication, skills crucial for navigating modern challenges while remaining anchored in Islamic values. One of the study's key findings is that AI fosters critical thinking by promoting inquiry-based learning. Personalized content, adaptive quizzes, and scenario-based activities encourage students to analyze, evaluate, and synthesize information, echoing the Islamic tradition of *ijtihad*, which emphasizes reasoning and contextual understanding in knowledge formation.

In addition to critical thinking, AI enhances collaborative learning by enabling digital discussion boards, group tasks, and peer feedback mechanisms. These features promote constructive dialogue and teamwork, aligning with Islamic principles of *shura* (consultation) and *ukhuwah* (brotherhood). Furthermore, AI stimulates creativity through tools that allow students to generate visual content, simulations, and digital storytelling. Learners can express Islamic teachings in innovative formats, such as animated narratives about the Prophet's life or virtual tours of Islamic heritage sites, bridging traditional content with modern forms of

expression. This fosters a dynamic *fikrah islami* (Islamic worldview) that speaks to contemporary lived experiences.

AI-powered communication tools, like voice recognition, translation, and text-to-speech applications, facilitate multilingual and multimodal communication, vital for participation in the global *ummah*. These tools empower students to engage across diverse platforms, reinforcing both digital fluency and ethical literacy. The study concludes that AI integration in Islamic Religious Education equips learners with future-ready competencies while upholding the epistemological and moral foundations of Islam. When aligned with *maqasid al-shariah* (the higher objectives of Islamic law), AI becomes a means to nurture individuals who are not only technologically adept but also spiritually conscious and socially responsible.

Recommendations for AI Implementation in Islamic Religious Education

This study recommends fostering collaboration between governments, educational institutions, and technology developers to build an inclusive and sustainable AI-based learning ecosystem for Islamic Religious Education. Key to this effort are teacher training, adequate infrastructure, and the development of clear, ethically grounded policies. The integration of AI has the potential to revolutionize religious learning by increasing accessibility, personalization, and interactivity. Tools such as adaptive learning platforms, virtual reality simulations, and AI-powered chatbots enable students to engage with Islamic content in dynamic and immersive ways. Additionally, AI can automate administrative tasks, allowing educators to focus more on pedagogical innovation. However, successful implementation requires addressing challenges like digital literacy gaps, infrastructure limitations, and data privacy concerns to ensure alignment with Islamic educational values. This research provides a structured framework for navigating these challenges and optimizing AI integration in an effective and ethically responsible manner.

The contribution of this study lies in its holistic approach to examining AI's role in Islamic Religious Education, bridging the gap between technological advancement and religious pedagogy. By emphasizing strategies such as targeted teacher training, infrastructure investment, and the ethical design of AI systems in accordance with Islamic principles, this research offers a practical roadmap for sustainable AI adoption. Furthermore, by incorporating the development of 21st-century skills (critical thinking, creativity, collaboration, and communication) into the discussion, the study shows how AI can enhance not only religious understanding but also learners' broader competencies. The recommendations presented here lay the groundwork for future research, encouraging further exploration into how AI can support the creation of holistic, value-driven, and technologically progressive Islamic learning environments.

CONCLUSION

AI holds substantial potential to transform Islamic Religious Education in the digital age by enhancing accessibility, personalization, and interactivity in learning. When implemented effectively, AI can optimize the teaching process through adaptive learning platforms, AI-powered assessments, and interactive digital

content, enabling a more student-centered approach. Furthermore, AI does not replace the role of educators but rather strengthens their function in shaping students' character and spirituality by automating administrative tasks and providing data-driven insights into student progress. This integration allows educators to focus more on pedagogical innovation and moral development, ensuring that Islamic values remain central to the educational process.

Despite its potential, the implementation of AI in Islamic Religious Education faces significant challenges, including disparities in technological infrastructure, low digital literacy among educators, and concerns related to data privacy and algorithmic bias. These obstacles necessitate a collaborative effort between the government, educational institutions, and technology developers to establish clear regulatory frameworks, enhance digital competency among teachers, and ensure AI systems align with ethical and Islamic principles. Through structured policies, comprehensive training programs, and adequate infrastructure, AI can be effectively utilized to support inclusive and value-based Islamic education. By leveraging AI responsibly, Islamic Religious Education can remain relevant and adaptive to modern educational demands while preserving its foundational principles.

ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to Universitas Yudharta Pasuruan and Kaduna State University, Nigeria for their invaluable support in facilitating this research. Their encouragement and resources have significantly contributed to the exploration of Artificial Intelligence (AI) in Islamic Religious Education learning. We also extend our appreciation to all educators, researchers, and institutions who have provided insights, discussions, and references that enriched this study. Special thanks to our colleagues and students who participated in discussions and shared their perspectives on AI integration in education. Lastly, we acknowledge the continuous advancements in educational technology, which inspire ongoing research on the role of AI in enhancing learning experiences while preserving the values of Islamic education.

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