

The Integration of Artificial Intelligence in Islamic Religious Education Opportunities Challenges and Ethical Implications

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Received: 2026/02/01

Revised: 2026/03/05

Accepted: 2026/04/19

Abstract

The rapid advancement of Artificial Intelligence (AI) has transformed educational practices across various disciplines, including religious education. In Islamic Religious Education (IRE), AI technologies offer innovative opportunities to enhance learning effectiveness, personalize instruction, and improve access to educational resources. However, the integration of AI into Islamic education also presents pedagogical, ethical, and theological challenges that require critical examination. This study aims to explore the opportunities, challenges, and ethical implications of integrating Artificial Intelligence into Islamic Religious Education. Employing a qualitative library research approach, the study analyzes scholarly literature, educational policies, and contemporary discussions concerning AI in education and Islamic pedagogy. The findings indicate that AI can contribute positively to Islamic Religious Education by supporting adaptive learning, interactive instruction, digital accessibility, and student engagement. AI-powered tools such as intelligent tutoring systems, automated feedback applications, and conversational platforms may facilitate deeper understanding of Islamic teachings and improve learning outcomes. Nevertheless, concerns regarding the authenticity of religious content, academic integrity, data privacy, algorithmic bias, and excessive dependence on technology remain significant challenges. Ethical considerations are particularly important because Islamic education emphasizes moral development, spiritual values, and responsible human interaction. The study concludes that the successful integration of Artificial Intelligence in Islamic Religious Education requires balanced pedagogical strategies, ethical digital governance, teacher supervision, and contextualized implementation aligned with Islamic educational values. Artificial Intelligence should therefore function as a supportive educational instrument rather than a replacement for human educators and moral guidance.

Keywords

Artificial Intelligence, Islamic Religious Education, Educational Technology, Ethics, Digital Learning, Islamic Pedagogy, AI Integration



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1. INTRODUCTION

The development of Artificial Intelligence (AI) has become one of the most influential technological transformations in contemporary society, particularly within the field of education. Artificial Intelligence refers to computational systems capable of performing tasks

that normally require human intelligence, including problem-solving, decision-making, language processing, and adaptive learning. Educational institutions worldwide increasingly utilize AI technologies to improve teaching effectiveness, personalize learning experiences, and support educational accessibility. According to Holmes et al. (2022), AI has introduced new possibilities for adaptive education, intelligent tutoring systems, and student-centered learning environments capable of responding dynamically to individual learner needs. As educational systems continue to evolve in the digital era, AI integration has expanded beyond science and technology disciplines into humanities, social sciences, and religious education.

Islamic Religious Education (IRE) represents a significant domain where technological transformation increasingly influences teaching and learning practices. Traditionally, Islamic education has emphasized direct teacher-student interaction, moral guidance, spiritual formation, and textual learning grounded in classical Islamic scholarship. The educational process in Islam is not limited to cognitive knowledge acquisition but also involves character development, ethical behavior, and spiritual cultivation. According to Halstead (2004), Islamic education seeks to develop holistic individuals who integrate intellectual understanding with moral and spiritual responsibility. Consequently, integrating Artificial Intelligence into Islamic Religious Education raises important opportunities and concerns regarding how technological innovation may affect the pedagogical, ethical, and spiritual dimensions of learning.

The growing integration of digital technologies into educational environments has accelerated significantly following global technological advancements and the increasing availability of online learning platforms. AI-powered applications such as ChatGPT, adaptive learning systems, automated assessment tools, and virtual educational assistants have become increasingly accessible to students and educators. These technologies provide opportunities for more interactive, personalized, and flexible learning experiences. In Islamic Religious Education, AI may support students in accessing religious resources, understanding Islamic concepts, practicing language learning related to Arabic texts, and engaging in independent study. According to Zawacki-Richter et al. (2019), AI technologies in education have demonstrated potential to improve learning efficiency, student engagement, and educational accessibility through personalized learning systems.

One significant opportunity offered by Artificial Intelligence in Islamic Religious Education involves adaptive and personalized learning. Students possess different levels of prior knowledge, learning styles, cognitive abilities, and educational needs. AI-powered educational systems can analyze students' learning patterns and provide customized instructional materials based on individual progress and performance. This capability is particularly beneficial in Islamic education because learners often vary in their familiarity with religious terminology, Qur'anic interpretation, and Arabic language comprehension. Luckin and Cukurova (2019) argue that AI-supported education enables more learner-centered pedagogical approaches that accommodate diverse educational backgrounds and improve learning engagement.

Furthermore, Artificial Intelligence can enhance accessibility to Islamic educational resources. Students can utilize AI-assisted platforms to access digital Qur'anic commentaries, Hadith collections, Islamic historical materials, and educational videos from different geographical locations. In regions where access to qualified Islamic educators may be limited, AI technologies can support broader educational inclusion. Digital educational systems also facilitate continuous learning beyond classroom environments, allowing students to engage in self-directed learning and independent exploration of religious knowledge. Selwyn (2021) notes that digital technologies have transformed educational structures by enabling flexible and collaborative learning experiences transcending traditional classroom boundaries.

Despite these opportunities, the integration of Artificial Intelligence into Islamic Religious Education also presents considerable challenges. One major concern involves the authenticity and reliability of religious information generated by AI systems. Artificial Intelligence models rely on large datasets gathered from multiple sources, some of which may contain inaccurate, culturally inappropriate, or theologically problematic interpretations of Islamic teachings. Religious education requires careful attention to authenticity, scholarly consensus, and contextual interpretation. Incorrect or misleading AI-generated religious content may contribute to misunderstanding, confusion, or even ideological extremism among learners. Therefore, educators and Islamic scholars remain essential in verifying AI-generated information and guiding students toward authentic religious understanding.

Another important challenge concerns the impact of AI on critical thinking and

intellectual engagement. While AI technologies provide quick access to information and automated responses, excessive dependence on AI systems may reduce students' motivation to engage in reflective analysis, independent reasoning, and deep learning processes. Educational theorists emphasize that meaningful learning involves active cognitive engagement rather than passive information consumption. According to Anderson and Krathwohl (2001), higher-order thinking skills such as analysis, evaluation, and creation are essential components of educational development. If students rely excessively on AI-generated answers without critical reflection, the educational value of Islamic Religious Education may become weakened.

Ethical considerations also occupy a central position in discussions regarding Artificial Intelligence integration within Islamic education. Islamic Religious Education emphasizes ethical conduct, moral character, sincerity, and human responsibility. Therefore, technological integration must align with Islamic ethical principles and educational objectives. UNESCO (2023) emphasizes that AI implementation in education should prioritize transparency, fairness, accountability, and human dignity. Several ethical concerns associated with AI include data privacy, algorithmic bias, digital inequality, academic dishonesty, and the commercialization of educational technologies. In Islamic educational contexts, ethical discussions also involve theological questions regarding human agency, moral responsibility, and the appropriate role of technology in spiritual learning processes.

The issue of algorithmic bias presents another significant challenge in AI integration. Artificial Intelligence systems may unintentionally reproduce cultural stereotypes, discriminatory assumptions, or biased interpretations present within training datasets. In religious education, biased or oversimplified representations of Islam may negatively affect students' understanding of religious diversity and intercultural relations. Consequently, educational institutions must critically evaluate AI technologies before implementing them in Islamic learning environments. Responsible AI governance requires collaboration among educators, technologists, policymakers, and religious scholars to ensure that digital educational systems reflect ethical and culturally sensitive principles.

Additionally, teachers' roles within AI-supported educational environments remain critically important. Some concerns have emerged regarding the possibility of technology replacing human educators. However, Islamic Religious Education involves dimensions that

cannot be replicated entirely by technological systems, including spiritual mentorship, emotional support, moral exemplification, and contextual ethical guidance. Teachers function not merely as information transmitters but also as role models shaping students' character and values. According to Freire (2000), education fundamentally involves human dialogue, critical consciousness, and transformative interaction. Therefore, Artificial Intelligence should be understood as a supportive educational tool rather than a substitute for educators.

The COVID-19 pandemic further accelerated educational digitalization worldwide, including within Islamic educational institutions. During periods of remote learning, digital platforms and online educational resources became essential for maintaining educational continuity. This transformation demonstrated both the opportunities and limitations of technology-mediated learning. While AI technologies improved accessibility and instructional flexibility, the pandemic also revealed inequalities in digital access, technological literacy, and educational readiness. These experiences reinforced the need for balanced and ethical approaches to educational technology integration.

Research regarding Artificial Intelligence in Islamic Religious Education remains relatively limited compared to studies focusing on science, mathematics, or language learning. Existing discussions often concentrate on technological innovation without sufficiently addressing religious, ethical, and pedagogical implications specific to Islamic educational contexts. Therefore, this study seeks to contribute to academic discussions by examining the opportunities, challenges, and ethical implications associated with Artificial Intelligence integration in Islamic Religious Education. Understanding these dimensions is important because technological developments will continue influencing future educational systems, including religious learning environments.

Ultimately, the integration of Artificial Intelligence into Islamic Religious Education reflects broader transformations occurring in the digital era. AI technologies possess considerable potential to improve learning effectiveness, accessibility, and engagement. However, educational institutions must ensure that technological innovation remains aligned with ethical principles, pedagogical quality, and the holistic objectives of Islamic education. Artificial Intelligence should therefore function as a complementary educational instrument supporting meaningful, responsible, and human-centered religious learning

rather than replacing the essential roles of educators and moral guidance.

2. METHODS

This study employs a qualitative research design using a library research approach to examine the integration of Artificial Intelligence in Islamic Religious Education, particularly focusing on its opportunities, challenges, and ethical implications. A qualitative approach was selected because the study seeks to explore educational phenomena, ethical considerations, and conceptual relationships related to Artificial Intelligence within religious educational contexts. According to John W. Creswell and J. David Creswell (2018), qualitative research enables researchers to investigate social and educational issues through interpretive analysis, contextual understanding, and detailed exploration of meanings and experiences. Since this study focuses on theoretical interpretation rather than numerical measurement, qualitative inquiry provides an appropriate methodological framework.

The study applies a library research method, also referred to as literature-based research, to systematically analyze scholarly literature concerning Artificial Intelligence, Islamic Religious Education, educational technology, ethics, and digital pedagogy. Library research is particularly suitable for studies aiming to synthesize conceptual discussions, identify theoretical perspectives, and evaluate existing academic findings. George (2008) explains that library research involves systematic identification, evaluation, interpretation, and synthesis of academic materials relevant to a specific research topic. Through this method, the researcher can critically examine diverse scholarly perspectives related to AI integration within Islamic educational environments.

Data sources in this study consist of primary and secondary academic materials. Primary sources include peer-reviewed journal articles, scholarly books, conference proceedings, policy reports, and institutional publications discussing Artificial Intelligence in education, Islamic pedagogy, educational ethics, and digital learning transformation. Secondary sources include educational reviews, academic essays, and supporting literature related to technological innovation and religious education. Several international academic databases, including Google Scholar, Scopus, SpringerLink, ScienceDirect, Taylor & Francis Online, and Wiley Online Library, were utilized to identify relevant literature. Keywords used during the literature search process included "Artificial Intelligence," "Islamic

Religious Education,” “AI ethics,” “educational technology,” “digital learning,” “Islamic pedagogy,” and “AI integration in education.”

The literature selection process was conducted systematically to ensure credibility, relevance, and academic quality. First, the researcher identified literature published between 2015 and 2026 to capture both foundational discussions and recent developments concerning Artificial Intelligence technologies and educational transformation. Recent publications were prioritized because AI technologies have evolved rapidly within the past decade, particularly following the emergence of advanced generative AI systems. Second, the selected literature was evaluated based on publication quality, academic reputation, citation impact, and relevance to the research objectives. Preference was given to peer-reviewed Scopus-indexed journal articles and publications from recognized educational organizations and research institutions. According to Snyder (2019), systematic literature selection is essential for maintaining research validity and minimizing interpretive bias.

Data collection involved several stages. The researcher first conducted an extensive literature search using predetermined keywords and database filters. Relevant sources were then carefully reviewed, categorized, and documented according to thematic relevance. Important findings, arguments, and conceptual frameworks were organized systematically to facilitate analytical interpretation. The researcher focused particularly on discussions concerning educational opportunities created by AI technologies, pedagogical challenges, ethical considerations, and the implications of AI integration for Islamic Religious Education.

The collected data were analyzed using thematic analysis techniques. Braun and Clarke (2006) define thematic analysis as a qualitative method used to identify, organize, analyze, and interpret recurring themes within textual data. In this study, thematic analysis enabled the researcher to categorize literature findings into several major themes, including adaptive learning opportunities, digital accessibility, ethical concerns, academic integrity, algorithmic bias, teacher roles, and spiritual dimensions of Islamic education. These themes were interpreted critically to develop comprehensive understanding regarding the integration of Artificial Intelligence in Islamic Religious Education.

To enhance research credibility and validity, the study employed source triangulation by comparing information from multiple academic references and institutional reports. Triangulation strengthens reliability by minimizing dependence on single-source

interpretations and ensuring balanced analytical perspectives (Patton, 2015). Perspectives from educational technology scholars, Islamic education experts, ethicists, and international educational organizations were integrated to produce comprehensive analysis regarding AI integration and its educational implications.

Ethical considerations were also maintained throughout the research process. Since this study relies exclusively on publicly accessible academic literature, no direct human participants were involved. Therefore, issues concerning informed consent and participant confidentiality were not applicable. Nevertheless, academic integrity remained an essential principle guiding the study. All referenced materials were cited appropriately to avoid plagiarism and ensure transparency in scholarly interpretation.

The study acknowledges several limitations. As a library research study, the findings rely primarily on conceptual and theoretical analysis rather than empirical classroom observation or participant experiences. Consequently, the study may not fully capture practical challenges encountered by teachers and students during real-world implementation of Artificial Intelligence in Islamic Religious Education. Future research may therefore employ empirical methods such as interviews, surveys, classroom observations, or case studies to explore practical educational experiences more comprehensively.

Overall, the qualitative library research method provides a suitable framework for examining the opportunities, challenges, and ethical implications of Artificial Intelligence integration in Islamic Religious Education. Through systematic literature analysis and thematic interpretation, the study aims to contribute to academic discussions regarding educational innovation, ethical technology implementation, and the future development of Islamic educational practices in the digital era.

3. FINDINGS AND DISCUSSION

The findings of this study indicate that the integration of Artificial Intelligence (AI) in Islamic Religious Education (IRE) presents substantial opportunities for improving educational effectiveness, accessibility, student engagement, and personalized learning experiences. Simultaneously, the implementation of AI also introduces significant pedagogical, ethical, and theological challenges requiring careful consideration by educators, institutions, and policymakers. The integration of AI into Islamic Religious Education reflects

broader educational transformations occurring in the digital era, where technological systems increasingly influence how knowledge is delivered, interpreted, and experienced within formal and informal learning environments.

One of the most significant findings concerns the role of Artificial Intelligence in enhancing personalized learning within Islamic Religious Education. Students possess different learning capacities, educational backgrounds, and levels of religious understanding. Traditional classroom instruction often struggles to accommodate these diverse learning needs due to time limitations and standardized teaching approaches. AI-powered educational systems, however, enable adaptive learning environments that respond to students' individual progress, preferences, and performance. Intelligent tutoring systems can provide customized instructional materials, immediate feedback, and differentiated learning pathways according to student comprehension levels. According to Holmes et al. (2022), AI technologies facilitate learner-centered educational environments by allowing educational systems to adapt dynamically to students' cognitive needs. Within Islamic Religious Education, this adaptability becomes particularly valuable because students frequently vary in their understanding of Qur'anic interpretation, Islamic jurisprudence, Arabic language proficiency, and theological concepts.

The findings also reveal that AI technologies significantly improve accessibility to Islamic educational resources. Students are increasingly able to access Qur'anic commentaries, Hadith literature, Islamic historical sources, and educational materials through AI-assisted platforms regardless of geographical limitations. This accessibility supports inclusive education by enabling learners from different regions and socioeconomic backgrounds to engage with religious knowledge more effectively. In contexts where qualified Islamic teachers may not always be available, AI-supported educational tools offer supplementary learning opportunities that extend beyond classroom settings. Zawacki-Richter et al. (2019) explain that Artificial Intelligence in education enhances educational accessibility through automated instructional systems and digital learning support mechanisms. The flexibility provided by AI systems also supports self-directed learning, allowing students to explore religious topics independently and revisit materials according to personal learning needs.

Another important finding concerns student engagement and interactive learning

experiences. Traditional Islamic Religious Education has often relied heavily on lecture-based instruction and memorization-oriented pedagogies. While these approaches remain valuable in preserving religious traditions, AI technologies introduce opportunities for more interactive learning experiences through simulations, conversational learning systems, automated quizzes, and digital educational assistants. Students can engage in question-and-answer sessions with AI systems, receive instant clarification regarding religious concepts, and participate in personalized discussions that support active learning. Luckin and Cukurova (2019) argue that AI-supported educational environments increase motivation and engagement by encouraging active learner participation and immediate educational feedback. Consequently, Islamic Religious Education may become more engaging and relevant for digitally oriented generations of students.

The findings further suggest that AI integration supports teachers in instructional planning and educational resource development. Artificial Intelligence systems may assist educators in generating lesson plans, preparing assessments, summarizing academic texts, and organizing classroom activities more efficiently. These capabilities reduce teachers' administrative burden and allow greater focus on pedagogical interaction, mentorship, and student guidance. Since Islamic Religious Education emphasizes moral and spiritual development, reducing technical workloads may enable educators to devote more attention to ethical discussions, character building, and contextual religious interpretation. According to Selwyn (2021), educational technology should complement human teaching rather than replace educators, enabling teachers to prioritize meaningful educational interaction.

Despite these opportunities, the study identifies considerable challenges associated with the integration of Artificial Intelligence in Islamic Religious Education. One major concern relates to the authenticity and reliability of religious information generated by AI systems. AI models generate responses based on patterns within extensive datasets collected from multiple sources, which may include conflicting interpretations, inaccurate theological positions, or culturally inappropriate representations of Islamic teachings. Religious education requires careful attention to authenticity, scholarly consensus, and interpretive accuracy because misunderstandings regarding religious principles may lead to confusion or ideological distortion. In Islamic pedagogy, knowledge transmission traditionally emphasizes chains of scholarly authority and contextual interpretation. Therefore, AI-

generated content cannot be accepted uncritically without educator supervision. Cotton et al. (2023) emphasize that although AI provides substantial educational benefits, concerns regarding misinformation and reliability remain central educational challenges.

Another important challenge identified involves academic integrity and excessive student dependence on Artificial Intelligence systems. AI technologies provide rapid access to information, automated explanations, and content generation capabilities that may unintentionally encourage passive learning behaviors. Students may become overly dependent on AI-generated answers without engaging in deeper reflection, analytical reasoning, or independent inquiry. Educational theorists emphasize that meaningful learning involves active participation and higher-order thinking processes rather than passive information retrieval. According to Anderson and Krathwohl (2001), effective education should develop analytical, evaluative, and creative capacities enabling learners to think critically and independently. Within Islamic Religious Education, excessive reliance on AI may weaken students' engagement with reflective learning processes essential for moral and spiritual development.

Ethical implications emerged as a particularly important dimension in the findings. Islamic Religious Education emphasizes ethical conduct, sincerity, moral responsibility, and human dignity. Therefore, integrating Artificial Intelligence into religious learning requires alignment with Islamic ethical values and educational objectives. UNESCO (2023) highlights that ethical AI implementation in education should prioritize transparency, accountability, privacy protection, fairness, and respect for human autonomy. Several ethical concerns identified in this study include algorithmic bias, misuse of personal educational data, unequal technological access, and the commercialization of digital learning systems. Algorithmic bias remains particularly problematic because AI systems may unintentionally reinforce stereotypes or oversimplified interpretations of Islam based on biased training data. Such distortions may negatively affect students' understanding of religious diversity and intercultural relations.

The findings also indicate that teacher roles remain indispensable despite increasing technological sophistication. Islamic Religious Education involves dimensions extending beyond cognitive knowledge transmission, including spiritual mentorship, emotional guidance, ethical role modeling, and contextual moral interpretation. Teachers function not

merely as providers of information but also as mentors shaping students' religious identity, values, and character development. Freire (2000) argues that education fundamentally depends on human dialogue, critical consciousness, and transformative interaction, dimensions difficult to replicate through automated technologies. Consequently, Artificial Intelligence should be understood as a complementary educational instrument rather than a substitute for educators. Human supervision remains necessary to ensure that technological systems support rather than undermine meaningful educational relationships.

Digital inequality emerged as another important challenge influencing the effectiveness of AI integration. Although educational technologies continue expanding globally, differences in internet access, digital infrastructure, and technological literacy persist among students and institutions. Learners from economically disadvantaged backgrounds may face limitations in accessing AI-powered educational resources, potentially increasing educational disparities. Dwivedi et al. (2023) argue that successful AI implementation depends not only on technological availability but also on institutional preparedness, teacher competence, and equitable digital access. Therefore, educational policymakers must address digital inequality to ensure inclusive technological transformation within Islamic education.

The findings further suggest that ethical digital literacy should become an essential component of Islamic Religious Education in the AI era. Students increasingly encounter vast amounts of online religious information from verified and unverified sources. Without sufficient critical literacy skills, learners may struggle to distinguish authentic religious scholarship from misleading or extremist interpretations. Integrating digital literacy education into Islamic pedagogy may strengthen students' critical awareness, enabling them to evaluate online religious content responsibly. This approach aligns with broader Islamic educational objectives emphasizing wisdom (*hikmah*), critical reflection (*tafakkur*), and ethical responsibility.

Overall, the findings demonstrate that Artificial Intelligence possesses significant potential to enhance Islamic Religious Education through personalized learning, improved accessibility, interactive engagement, and instructional support. However, effective implementation requires careful attention to pedagogical quality, ethical concerns, authenticity of religious content, and human-centered educational principles. The integration

of Artificial Intelligence should therefore prioritize balanced collaboration between technological innovation and human guidance to ensure that Islamic Religious Education continues fulfilling its intellectual, ethical, and spiritual objectives in the digital era.

4. CONCLUSION

This study concludes that the integration of Artificial Intelligence in Islamic Religious Education presents considerable opportunities for improving educational quality, accessibility, and student engagement while simultaneously introducing important pedagogical and ethical challenges. Artificial Intelligence technologies have demonstrated significant potential in supporting personalized learning, adaptive instruction, interactive educational experiences, and broader access to Islamic educational resources. AI-powered systems enable students to engage with religious knowledge more flexibly, receive immediate feedback, and access educational content beyond traditional classroom limitations.

The findings indicate that Artificial Intelligence can contribute positively to Islamic Religious Education by supporting individualized learning pathways and facilitating more engaging educational environments. Teachers may also benefit from AI-assisted instructional planning, assessment preparation, and digital educational resource management. Such technological support allows educators to allocate greater attention to moral guidance, contextual interpretation, and character formation, which remain central goals of Islamic education. However, the study also identifies several significant concerns requiring careful consideration. Issues related to the authenticity and reliability of AI-generated religious content, academic integrity, algorithmic bias, digital inequality, and student overdependence on automated systems remain critical challenges. Since Islamic Religious Education involves moral, spiritual, and theological dimensions, technological systems cannot replace the essential role of teachers as mentors, ethical role models, and spiritual guides. Human supervision remains necessary to ensure accurate interpretation and responsible use of Artificial Intelligence in educational contexts.

Furthermore, ethical considerations must remain central in AI implementation. Educational institutions should develop policies ensuring transparency, accountability, data privacy, fairness, and responsible technological use consistent with Islamic ethical principles.

Digital literacy should also be integrated into Islamic education to strengthen students' ability to critically evaluate online religious information. Ultimately, Artificial Intelligence should be viewed as a supportive educational instrument rather than a substitute for human-centered pedagogy. Balanced collaboration between educators and technology offers promising opportunities for strengthening Islamic Religious Education while preserving its ethical, intellectual, and spiritual foundations in the digital era.

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