

Artificial Intelligence Integration in Islamic Education: A Systematic Literature Review

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DOI Link: <http://dx.doi.org/10.6007/IJARPED/v15-i3/28774>

Published Online: 14 August 2026

Abstract

The rapid development of Artificial Intelligence (AI) has transformed educational practices worldwide, including Islamic Education. This study aims to systematically review the literature on the integration of AI applications in Islamic Education, focusing on ethical concerns and the effectiveness of AI as a learning support tool. A Systematic Literature Review (SLR) approach guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework was employed. Relevant articles published between 2022 and 2026 were identified from Scopus, Web of Science, and Google Scholar, with the final literature search conducted on 27 January 2026. Eight eligible studies were analysed through qualitative synthesis and quality appraisal using the Mixed Methods Appraisal Tool (MMAT). The findings revealed two major themes. First, ethical concerns surrounding AI involve issues of epistemological authority, information accuracy, academic integrity, and compliance with Islamic values and Shariah principles. Second, AI demonstrates significant potential in enhancing learning effectiveness through personalised learning, cognitive support, self-directed learning, and improved academic efficiency. Nevertheless, AI should function as a supplementary educational tool rather than an authoritative source of Islamic knowledge. The study concludes that effective integration of AI in Islamic Education requires continuous pedagogical guidance, digital literacy, and a Shariah-based ethical framework to ensure alignment with Islamic educational objectives.

Keywords: Artificial Intelligence, Islamic Education, Islamic Ethics, Learning Effectiveness, Systematic Literature Review

Introduction

The integration of technology into education has advanced rapidly in recent years, with Artificial Intelligence (AI) emerging as one of the most transformative innovations in contemporary teaching and learning. In Malaysia, the application of AI in Islamic Education has gained increasing attention, particularly as educators seek to enhance instructional effectiveness and improve students' learning experiences. The rapid development of AI technologies offers numerous opportunities to enrich educational practices, facilitate knowledge dissemination, and improve learning outcomes.

One of the most significant contributions of AI is its ability to support the development of engaging and interactive teaching and learning materials that cater to students' diverse

learning needs. AI applications in education can provide personalised guidance, support, and feedback to students while assisting teachers in educational decision-making (Hwang et al., 2020). Within the context of Islamic Education, AI has the potential to support more personalised and adaptive learning by tailoring educational content to students' individual needs, preferences, levels of understanding, and learning pace, while AI-powered learning platforms can automatically adjust instructional content according to students' learning progress (Alamin, 2023).

Beyond classroom instruction, AI also plays an important role in facilitating research and knowledge development in the field of Islamic studies. Advanced AI tools can assist researchers and students in accessing scholarly resources, processing large volumes of information, and supporting various research-related tasks. Consequently, AI provides opportunities for younger generations to deepen their understanding of Islamic knowledge while appreciating its intellectual heritage within the broader context of contemporary technological advancement.

Despite these promising opportunities, the integration of AI into Islamic Education requires careful consideration. It is essential to ensure that AI technologies are implemented in ways that are consistent with Islamic values, ethical principles, and the objectives of Islamic education. Issues related to the accuracy of religious information, academic integrity, ethical decision-making, and the authority of Islamic knowledge must be carefully addressed. Therefore, collaboration among educational institutions, religious scholars, policymakers, and technology developers is necessary to establish appropriate guidelines and governance frameworks that ensure the responsible, ethical, and Shariah-compliant use of AI in Islamic Education for the benefit of society.

Literature Review

The advancement of Artificial Intelligence in Education (AIED) has significantly transformed instructional design, learning management, and assessment practices through adaptive learning, intelligent tutoring systems, learning analytics, and automated assessment (Holmes et al., 2019). AI has increasingly been incorporated into educational practices, offering opportunities for more personalised and technology-supported learning while also raising broader pedagogical, social, and ethical considerations (Ouyang & Jiao, 2021; Williamson & Eynon, 2020). The emergence of generative AI tools such as ChatGPT has further expanded AI's potential as a learning support tool by providing instant feedback, facilitating idea generation, and assisting with writing tasks. Nevertheless, its use has also generated concerns related to algorithmic bias, unequal access, academic integrity, and the authenticity of students' work (Kasneci et al., 2023; Perkins, 2023). Furthermore, issues concerning data privacy, algorithmic transparency, and AI hallucinations (the generation of plausible but inaccurate information) highlight the need to strengthen digital literacy, source verification, and human oversight to ensure the reliability of AI-generated content (Ji et al., 2023; Miao & Holmes, 2023).

Within the context of Islamic Education, these challenges are particularly significant because they involve the authority and authenticity of religious knowledge, trustworthiness (*amanah*), proper conduct (*adab*), and compliance with Shariah principles. From an Islamic educational perspective, the acquisition of knowledge extends beyond the transmission of

information to encompass the proper recognition of knowledge and authority, as well as the cultivation of *adab* (Al-Attas, 1980). Consequently, the integration of AI should be guided by ethical principles that emphasise human-centred values and fairness, transparency, privacy and data protection, and accountability (OECD, 2019). Despite growing interest in the application of AI in Islamic Education, there remains a need for a systematic synthesis of evidence concerning its ethical implications, learning effectiveness, and Shariah-aligned implementation. Therefore, this systematic literature review seeks to synthesise the existing evidence, identify current research gaps, and provide a clearer understanding of how AI can be integrated into Islamic Education in an ethical and pedagogically sound manner. While the literature discussed above provides the broader theoretical and empirical context for AI in Islamic Education, the evidence synthesised in this review is limited to the eight studies that met the predefined eligibility criteria.

Methodology

This study was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (Page et al., 2021) to ensure that the literature search, selection, and analysis were carried out in a systematic, transparent, and reproducible manner. A systematic review approach enables existing evidence to be identified, critically evaluated, and synthesised systematically, thereby providing a comprehensive understanding of the research area (Siddaway et al., 2019). The PRISMA framework was adopted as a widely recognised standard for reporting systematic reviews and enhancing transparency in the review process. Guided by the PRISMA 2020 framework (Page et al., 2021), the systematic literature review (SLR) process comprised four main stages: identification, screening, eligibility, and inclusion. The overall study selection process is illustrated in Figure 1.

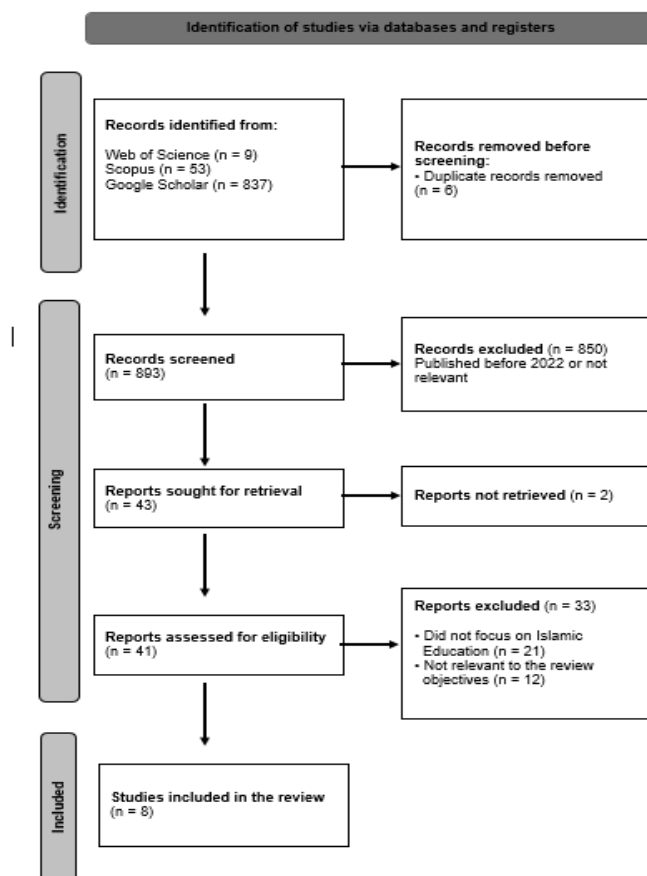


Figure 1. PRISMA 2020 flow diagram illustrating the study selection process.

Source: Adapted from Page et al. (2021).

Identification: During the identification stage, a comprehensive literature search was conducted across Scopus, Web of Science, and Google Scholar using predefined search strings. The use of multiple academic search systems was intended to enhance the comprehensiveness of literature retrieval, as search systems differ in their coverage and retrieval capabilities (Gusenbauer & Haddaway, 2020). The search strategy was developed systematically using relevant keywords and Boolean operators to enhance search comprehensiveness, following recommendations for systematic review search development (Bramer, de Jonge, Rethlefsen, Mast, & Kleijnen, 2018). The search combined keywords related to artificial intelligence, Islamic education, ethics, challenges, and impact, resulting in 899 records for the initial screening process. The detailed search strategies and syntax employed for each database are summarised in Table 1.

Table 1

Database search strategies and search strings employed in the study

Database	Search string	Records Retrieved (n)
Scopus	TITLE-ABS-KEY (("artificial intelligence" OR "kecerdasan buatan") AND ("religious study" OR "Islamic education" OR "pendidikan islam") AND ("challenges" OR "ethics" OR "etika" OR "cabaran") AND ("impact" OR "effectiveness" OR "kesan"))	9
Web of Science	TS=((("artificial intelligence") AND ("religious study" OR "quranic education" OR "Islamic education") AND ("challenges" OR "ethics") AND ("impact" OR "effectiveness"))	53
Google Scholar	("artificial intelligence" OR "kecerdasan buatan") AND ("pendidikan Islam" OR "Islamic education") AND ("etika" OR "cabaran") AND ("keberkesanan" OR "kesan")	837
Total		899

Screening: During the screening phase, 893 records were screened after removing six duplicates from 899 identified records. The eligibility criteria presented in Table 2 were applied during the screening and eligibility phases to ensure that only studies relevant to the review objectives were included in the final synthesis.

Table 2

Inclusion and exclusion criteria used for study selection.

Criterion	Inclusion Criteria	Exclusion Criteria
Publication year	Studies published between 2022 and 2026	Studies published before 2022
Publication type	Peer-reviewed journal articles	Conference proceedings, books, book chapters, theses, dissertations, review papers
Language	English or Malay	Languages other than English or Malay
Database	Scopus, Web of Science, and Google Scholar	Publications retrieved from other databases
Study focus	Artificial Intelligence (AI) in Islamic Education or Religious Education	Studies unrelated to Islamic Education or AI

Inclusion Phase: Eight studies fulfilled all predefined eligibility criteria and were included in the final qualitative synthesis. This rigorous selection process ensured that only studies directly relevant to the review objectives were retained for analysis (see Figure 1).

Quality Assessment

Study quality was assessed using the Mixed Methods Appraisal Tool (MMAT) developed by Hong et al. (2018) to evaluate the methodological quality of the included studies according to their respective study designs. All eight included studies met the minimum quality criteria and were retained for qualitative synthesis. The quality assessment was conducted independently by two reviewers, and any differences in appraisal were resolved through discussion and consensus.

Data Extraction and Analysis

Data extraction and analysis were conducted systematically using a predefined extraction form to collect key information from each included study, including the research objectives, methodological design, AI application context, and principal findings. Guided by the review objectives, the extracted data were organised into two predefined themes: (i) ethical issues and the alignment of AI with Shariah principles and Islamic values, and (ii) the effectiveness of AI as a learning support tool in Islamic Education. The extracted data were subsequently analysed using thematic analysis to identify recurring patterns and themes across the selected studies (Braun & Clarke, 2006).

The Findings*Characteristics of the Included Studies*

Following the screening and eligibility process, eight studies met the predefined inclusion criteria and constituted the final evidence base for this systematic review. Table 3 presents the characteristics of these included studies, including the authors, journals, research methodologies, study samples, and educational contexts.

Table 3

Characteristics of the included studies

No.	Full Author(s)	Journal	Methodology	Sample / Field Data	Context / Language
1	Mohd Khairul Naim Che Nordin, Nurin Aina Othman, Muhammad Hazim Mohd Azhar, Syed Mohammad Hilmi Syed Abdul Rahman & Abdul Hannan Mohd Azhar	<i>Jurnal Usuluddin</i> (2025)	Mixed methods (survey + semi-structured interview)	Islamic Studies students	Higher Education; Malaysia; English
2	Roslina Hashim & Norizan Samri	<i>Jurnal 'Ulwan</i> (2025)	Quantitative descriptive survey	80 Islamic Studies students (Universiti Islam Melaka)	Higher Education; Malaysia; Malay
3	Dzulfaidhi Hakimie Dzulraidi, Ali Abdul Jalil & Muhammad Lukman Mat Sin	<i>QURANICA</i> (2025)	Qualitative content analysis	Four selected Qur'anic surahs (document analysis) Interactive ChatGPT	Qur'anic Translation; Malaysia; Malay
4	Abd Muhaimin Ahmad & Muhammad Arif Musa	<i>QURANICA</i> (2025)	Qualitative simulation study	simulation involving 30 juz' of the Qur'an	Tahfiz Education; Malaysia; Malay
5	Nik Nurul Akmal Ab Alim, Khairussaadah Wahid, Siti Nor Haliza Abd Zamani & Faezy Adenan	<i>QURANICA</i> (2025)	Quantitative survey	205 UiTM foundation students	Qur'an Memorisation; Malaysia; Malay
6	Tholkhatul Khoir, Mohd Fadzil Abdul Hanid, Moh Khasan, Noor Azean Atan,	<i>Edelweiss Applied Science and</i>	Quantitative quasi-experimental	73 students	Fiqh Education (Sekolah Indonesia Johor Bahru); English

	Misbah Zulfa Elizabeth & Shahrin Hashim	Technology (2024)			
7	Noraini Hamzah & Hafizhah Zulkifli	Attarbawiy: Malaysian Online Journal of Education (2025)	Quantitative survey	97 Islamic Education teachers	Primary School; Malaysia; Malay
8	Agus Pahrudin, Irwandani, Muhammad Aridan & Muhammad Farhan Barata	Journal of Teaching and Learning (2025)	Quantitative survey (Rasch Model Analysis)	1,120 Islamic school teachers	Madrasah & Islamic Schools (Indonesia); English

Figure 2 shows that most of the included studies were published in 2025 ($n = 7$, 87.5%), while only one study (12.5%) was published in 2024. This trend indicates a growing research interest in the application of artificial intelligence in Islamic Education, particularly following the rapid adoption of generative AI technologies in educational settings.

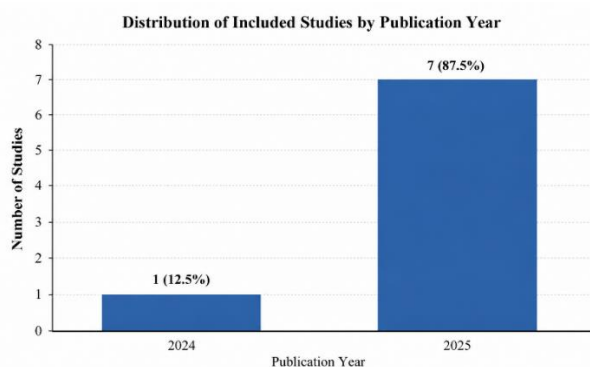


Figure 2. Distribution of the included studies by publication year.

Figure 3 illustrates that higher education accounted for the largest proportion of the included studies (37.5%, $n = 3$), followed by Qur'anic studies and Tahfiz (25.0%, $n = 2$). The remaining studies focused on school education, teacher education, and Fiqh education, each representing 12.5% ($n = 1$) of the total. This distribution suggests that research on artificial intelligence in Islamic Education has primarily concentrated on higher education settings, with comparatively limited attention given to other educational contexts.

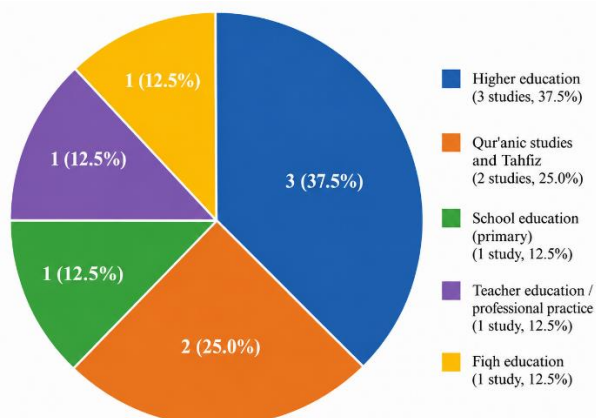


Figure 3. Distribution of the included studies by research context.

Data Extraction Matrix and Gap Analysis

Table 4 presents the data extraction of the eight studies included in this systematic literature review. The extracted information comprises the authors, theoretical or conceptual framework, research focus on ethical issues (E) and/or the effectiveness of AI (K), methodology, main findings, and the identified research gaps and recommendations. Overall, the findings indicate that most studies focused on the effectiveness of AI in supporting Islamic Education, while fewer studies addressed ethical issues and the integration of AI with Islamic values and Shariah principles.

Table 4

Data extraction of the included studies

Author (Year)	Theory/Model	Ethical (E) / Effectiveness (K)	Methodology	Main Findings	Research Gap & Recommendations
Che Nordin et al. (2025)	Not explicitly stated	E & K	Mixed methods	Students perceived ChatGPT as useful for learning Islamic Studies but emphasised verification of AI-generated content and lecturer guidance.	Future studies should investigate long-term learning outcomes and develop Shariah-compliant AI usage guidelines.
Hashim & Samri (2025)	Theory of Planned Behavior (TPB)	E & K	Quantitative survey	Students demonstrated a high level of readiness to use AI in Shariah studies, with positive attitudes towards its benefits and confidence in using AI ethically and in accordance with Shariah principles.	Examine AI effectiveness across different educational levels and learning environments.
Dzulraidi, Abdul Jalil & Mat Sin (2025)	Maqasid al-Shariah / Islamic ethical framework	E	Qualitative content analysis	AI applications should comply with Islamic ethical principles, particularly concerning accuracy, trustworthiness, and responsible use.	Develop a comprehensive Islamic ethical framework for AI implementation in education.
Ahmad & Musa (2025)	AI-assisted Tahfiz learning	K	Qualitative simulation	AI demonstrated potential to support Qur'anic memorisation and self-guided revision through	Evaluate AI applications in authentic Tahfiz classrooms using empirical research.

				interactive muraja'ah activities.	
Ab Alim et al. (2025)	Not explicitly stated	E & K	Quantitative survey	Students accepted AI as a learning tool but highlighted concerns regarding plagiarism, overdependence, and academic integrity.	Investigate strategies for balancing AI use with independent learning and ethical awareness.
Khoir et al. (2024)	AI-assisted learning	K	Quasi-experimental	AI significantly enhanced students' understanding and achievement in Fiqh learning compared with conventional instruction.	Conduct longitudinal and multi-institutional studies to confirm instructional effectiveness.
Hamzah & Zulkifli (2025)	Teacher readiness framework	E & K	Quantitative survey	Teachers demonstrated moderately high readiness for AI integration, while challenges included limited professional training, technological infrastructure, and the need to align AI use with Islamic values and principles.	Provide professional development programmes and institutional AI governance.
Pahrudin et al. (2025)	Teacher acceptance / Rasch measurement model	K	Quantitative (Rasch analysis)	Teachers demonstrated moderate readiness for AI integration, with variations associated with ICT competency and demographic factors.	Examine factors influencing teachers' AI competency and readiness within Islamic Education settings.

Overall, the data extraction matrix indicates that the included studies predominantly focused on the effectiveness of AI in Islamic Education, with relatively limited attention to ethical issues and Shariah compliance. The identified research gaps highlight the need for more comprehensive and context-specific studies to support the responsible integration of AI in Islamic Education.

Thematic Analysis

The thematic analysis was conducted to synthesise the findings of the included studies according to the review objectives. Two overarching themes emerged from the analysis: (i) ethical issues and the alignment of artificial intelligence with Islamic values and Shariah principles, and (ii) the effectiveness of artificial intelligence as a learning support tool in Islamic Education. These themes provide a comprehensive understanding of the current state of AI implementation in Islamic Education and highlight key areas for future research.

Ethical Issues and the Alignment of AI with Shariah Principles and Islamic Values

The reviewed studies consistently recognised AI as a valuable learning support tool in Islamic Education but not as an authoritative source of Islamic knowledge. AI lacks the epistemological authority derived from divine revelation, *sanad* (scholarly transmission), and recognised Islamic scholarship. Dzulraidi, Abdul Jalil, and Mat Sin (2025) found that ChatGPT demonstrated limitations in Qur'anic translation, particularly in preserving interpretative accuracy and consistency, while Che Nordin, Othman, Mohd Azhar, Syed Abdul Rahman, and Mohd Azhar (2025) emphasised that AI cannot replace the epistemological foundations of Islamic knowledge. Concerns regarding the accuracy and reliability of AI-generated content were also highlighted. Ahmad and Musa (2025) reported technical inaccuracies in AI-assisted Qur'anic revision, whereas Ab Alim, Wahid, Abd Zamani, and Adenan (2025) identified students' concerns about the reliability of AI in supporting Qur'an memorisation, particularly regarding *makhraj* and *tajwid*. Ethical issues emerged as an important theme, with students and educators recognising the importance of avoiding plagiarism, preventing overreliance on AI, and ensuring its use remains aligned with Islamic values. Hashim and Samri (2025) reported high levels of ethical awareness among students, while Hamzah and Zulkifli (2025) stressed the need to align AI implementation with Islamic principles in educational practice. Nevertheless, the absence of comprehensive institutional guidelines and Shariah-based ethical frameworks remains a significant concern, highlighting the need for structured governance to ensure that AI is used responsibly and ethically in Islamic Education (Che Nordin et al., 2025).

Effectiveness of AI as a Learning Support Tool in Islamic Education

The findings revealed that AI has the potential to serve as an effective learning support tool in Islamic Education by enhancing learning efficiency, facilitating access to information, and encouraging self-directed learning. AI was found to be particularly beneficial in Fiqh, Tahfiz, and Shariah studies, where it assisted students in managing learning tasks, revising Qur'anic memorisation, and organising academic ideas more effectively (Khoir et al., 2024; Ahmad & Musa, 2025; Hashim & Samri, 2025). Furthermore, AI functioned as a cognitive support tool by helping students generate initial ideas, structure assignments, and clarify fundamental concepts, thereby reducing cognitive load and allowing greater focus on critical analysis (Ab Alim et al., 2025; Che Nordin et al., 2025). The findings indicated a high level of student readiness and a moderately high level of teacher readiness towards AI use, while both studies highlighted the importance of appropriate guidance and ethical considerations in its integration (Hamzah & Zulkifli, 2025; Hashim & Samri, 2025). Nevertheless, the use of AI in Qur'anic translation requires greater caution because inaccuracies and limitations in preserving interpretative nuances may affect the intended meaning of the Qur'anic text (Dzulraidi et al., 2025). Several studies also warned that excessive reliance on AI may weaken students' critical thinking and encourage uncritical acceptance of AI-generated responses

(Che Nordin et al., 2025; Ahmad & Musa, 2025). Overall, AI is most effective when used as a complementary learning tool alongside educator guidance and value-based Islamic pedagogy rather than as a replacement for traditional teaching and authoritative Islamic sources (Ab Alim et al., 2025; Che Nordin et al., 2025).

Discussion

The findings of the eight included studies suggest that AI has potential to enhance teaching and learning in Islamic Education, particularly by supporting self-directed learning, improving learning efficiency, and facilitating access to educational resources. These findings are consistent with previous studies in AIED, which demonstrate that AI can improve instructional design, personalise learning experiences, and support adaptive learning through intelligent educational technologies (Holmes et al., 2019; Ouyang & Jiao, 2021). Similarly, the reviewed studies showed that AI effectively supports learning in Fiqh, Tahfiz, and Islamic Studies by assisting students in managing academic tasks, organising ideas, and strengthening independent learning (Khoir et al., 2024; Ab Alim et al., 2025; Che Nordin et al., 2025). These findings suggest that AI can complement existing pedagogical practices when integrated appropriately into Islamic Education.

However, unlike many educational disciplines where AI is primarily evaluated based on learning outcomes, the findings of this review demonstrate that the effectiveness of AI in Islamic Education is closely linked to the authenticity and authority of religious knowledge. Although AI improves learning efficiency, it is consistently regarded as a complementary tool rather than an authoritative source of Islamic knowledge. This reflects the epistemological foundations of Islamic Education, where knowledge is derived from divine revelation, authentic sources, and recognised scholarly authority through sanad. This perspective is consistent with Al-Attas (1980), who emphasises that Islamic education involves not merely the acquisition of knowledge but also the proper recognition and ordering of knowledge through the cultivation of adab. Consequently, AI-generated content requires verification by qualified educators and Islamic scholars before being incorporated into teaching and learning (Che Nordin et al., 2025; Dzulraidi et al., 2025). This finding extends the broader discussion by Miao and Holmes (2023), which emphasises that human oversight remains essential to ensure the reliability, accountability, and responsible use of AI in education.

The review also identified several limitations associated with AI-generated content, including factual inaccuracies, linguistic weaknesses, and difficulties in preserving the contextual meanings of Qur'anic texts (Dzulraidi et al., 2025). These findings are consistent with previous studies highlighting AI hallucinations and the potential dissemination of inaccurate information, particularly in domains requiring specialised knowledge (Ji et al., 2023). Likewise, concerns regarding overreliance on AI and declining critical thinking skills observed in the reviewed studies (Che Nordin et al., 2025) support earlier arguments that generative AI should function as a learning assistant rather than a substitute for learners' cognitive engagement or educators' instructional roles (Kasneci et al., 2023; Perkins, 2023).

Another important finding concerns users' readiness to adopt AI in Islamic Education. Across the reviewed studies, students and educators generally demonstrated positive attitudes and varying levels of readiness towards AI integration. However, the synthesis also highlighted the importance of adequate digital literacy, professional development,

pedagogical support, and institutional support for effective AI integration (Hashim & Samri, 2025; Hamzah & Zulkifli, 2025; Pahrudin et al., 2025). These findings align with Williamson and Eynon (2020), who argued that the educational impact of AI depends not only on technological capability but also on teachers' readiness and the broader educational ecosystem.

Finally, although fewer studies focused explicitly on ethical issues, ethical considerations emerged as an important dimension of AI integration in Islamic Education. While existing AI ethics frameworks emphasise transparency, accountability, fairness, and privacy (Miao & Holmes, 2023; OECD, 2019), the reviewed studies highlight additional ethical dimensions that are unique to Islamic Education, including amanah (trustworthiness), adab (proper conduct), and compliance with Shariah principles (Che Nordin et al., 2025; Dzulraidi et al., 2025). Based on the synthesis of the findings, the authors recommend that existing international AI governance frameworks be complemented by Shariah-informed ethical guidelines to address the specific ethical and epistemological considerations of AI use in Islamic Education. Such guidelines could help ensure that AI supports learning without compromising the authenticity of Islamic knowledge, academic integrity, or religious values. Therefore, the integration of AI in Islamic Education should prioritise human oversight, educator guidance, and value-based pedagogical practices, positioning AI as a complementary educational tool rather than a replacement for teachers or authoritative Islamic sources.

Conclusion

This systematic literature review, based on eight included studies, suggests that AI has promising potential to support teaching and learning in Islamic Education, particularly in enhancing learning efficiency, facilitating access to information, and supporting Qur'anic learning, while students and educators demonstrated varying levels of readiness to engage with AI. However, the findings also indicate that AI should remain a complementary learning tool rather than an authoritative source of Islamic knowledge, particularly in areas involving Qur'anic interpretation, religious authority, and the verification of Islamic knowledge. These conclusions should be interpreted cautiously due to the limited evidence base, geographical concentration of the studies, methodological diversity, and the narrow publication window, with seven of the eight studies published in 2025. Further research across diverse educational and geographical contexts is therefore required before broader conclusions can be drawn. Future studies should also examine the development and effectiveness of Shariah-informed ethical frameworks for AI integration while maintaining human oversight, educator guidance, and appropriate verification of AI-generated religious content.

Acknowledgement: The authors gratefully acknowledge the academic and technical support provided by all individuals and institutions who contributed to the successful completion of this study and the preparation of this article for publication.

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