Balancing Turath and Technology:

AI Integration in Islamic Education—A Systematic Review

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Abstract

The global advent of artificial intelligence (AI) is reshaping educational landscapes, introducing both opportunities and challenges across diverse contexts. Within Islamic education, the imperative to preserve Turath (heritage) while embracing modern pedagogical advancements presents a unique dilemma. This systematic literature review synthesises research on AI integration in Islamic education, focusing on the dual aims of safeguarding cultural heritage and modernising teaching practices. Drawing on studies published between 2010 and 2024, the review explores theoretical frameworks, empirical case studies, and policy analyses to identify key trends, challenges, and opportunities. The findings reveal that AI can enhance personalisation, efficiency, and content generation in madrasahs and other Islamic educational settings. However, concerns regarding cultural integrity, ethical standards, and infrastructural constraints persist. The review highlights the importance of embedding Islamic values within AI systems, fostering teacher development, and developing context-sensitive ethical frameworks. Recommendations are proposed for policymakers, educators, and technologists to ensure that technological progress reinforces rather than undermines the intellectual and cultural foundations of Islamic education. The paper concludes by outlining future research directions aimed at sustaining the harmonious coexistence of tradition and innovation in faith-based education.

Keywords: Artificial Intelligence, Islamic Education, Turath, Pedagogy, Systematic Literature Review, Ethics, Madrasah

1. Introduction

1.1 Background and Context

The rapid advancement of digital technologies has profoundly transformed educational paradigms worldwide. Among these, artificial intelligence (AI) stands out as a

revolutionary force with the potential to reshape teaching and learning processes fundamentally (Alghamdi, 2022; UNESCO, 2023). AI systems, encompassing machine learning, natural language processing, and intelligent tutoring systems, enable adaptive instruction, personalised learning pathways, and streamlined administrative functions. These capabilities contribute to improved educational outcomes, increased operational efficiency, and enhanced learner engagement (Rahman & Ismail, 2021).

Despite the growing body of research and practical applications of AI in education, much of the focus has been on secular, mainstream educational settings. Faith-based educational systems, such as Islamic education, have received comparatively less attention in the discourse on AI integration. This oversight is significant given the unique characteristics and values that underpin Islamic education, which emphasises not only cognitive development but also spiritual and ethical growth (Al-Attas, 2019).

Islamic education is deeply rooted in the preservation and transmission of Turath — the rich intellectual, cultural, and spiritual heritage of Islam. This heritage encompasses classical texts, Qur'anic exegesis (tafsir), jurisprudence (fiqh), theology (aqidah), philosophy, and the arts, all of which are integral to the identity and continuity of Muslim communities worldwide (Al-Attas, 2019). The pedagogical approaches traditionally employed in madrasahs and other Islamic educational institutions reflect centuries-old methods prioritising memorisation, oral transmission, and teacher-student relationships grounded in trust and respect (Yusof et al., 2020).

The integration of AI into Islamic education presents a complex challenge: how to harness the transformative potential of AI technologies to modernise pedagogy and improve educational access and quality, while simultaneously safeguarding the integrity and authenticity of Turath. This balance is critical to ensure that technological innovation does not erode the cultural and religious values that define Islamic education (Khan & Ahmad, 2022).

Moreover, many Islamic educational institutions operate in resource-constrained environments, particularly in developing countries, where infrastructural limitations, lack of teacher training, and financial constraints hinder the adoption of advanced

technologies (Yusof et al., 2020). At the same time, globalisation and the digital literacy of contemporary learners exert pressure on these institutions to evolve and remain relevant in the 21st century (Rahman & Ismail, 2021).

1.2 Statement of the Research Problem

While AI holds promise for enhancing educational outcomes, there is no consensus on how best to integrate AI within Islamic educational settings in a manner that respects and preserves Turath. The existing literature on AI in education often overlooks the cultural, ethical, and pedagogical nuances specific to Islamic contexts (Khan & Ahmad, 2022). Key unresolved questions include: How can AI be employed to modernise teaching practices without compromising the values inherent in Islamic heritage? What ethical frameworks are necessary to guide AI implementation in culturally sensitive environments? How can resource constraints be addressed to enable equitable access to AI-enhanced education in madrasahs?

1.3 Purpose and Significance of the Study

This systematic literature review aims to synthesise existing research on the integration of AI in Islamic education, focusing on the dual objectives of preserving Turath and modernising pedagogy.

The study seeks to:

- Identify key findings regarding AI applications in Islamic educational contexts.
- Examine theoretical frameworks that inform the study of AI and Islamic pedagogy.
- Analyse challenges and opportunities in AI adoption within madrasahs.
- Highlight gaps in current research and propose directions for future inquiry.

1.4 Rationale for the Review

The rapid expansion of AI in education necessitates critical engagement with its implications for diverse cultural and religious contexts. While secular educational settings have benefited from extensive research and policy development, Islamic education remains underexplored in this regard (Rahman & Ismail, 2021). Previous studies have often focused on isolated case studies or technological capabilities without integrating broader cultural, ethical, and pedagogical considerations.

1.5 Scope and Limitations

The review includes peer-reviewed journal articles, academic books, and reputable reports written in English and published between 2010 and 2024. It focuses on intersections among AI, Islamic education, and cultural preservation. Non-English publications and non-peer-reviewed sources are excluded to maintain rigour.

Limitations include potential publication bias favouring positive outcomes and the heterogeneity of study designs, which restricts quantitative meta-analysis. The nascent stage of AI integration in Islamic education means much of the literature is exploratory, necessitating cautious interpretation of findings.

1.6 Structure of the Paper

The paper is organised as follows: Section 2 outlines the theoretical framework and key concepts underpinning AI integration in Islamic education. Section 3 details the methodology of the systematic literature review. Section 4 presents a comprehensive literature review synthesising empirical and theoretical studies. Section 5 offers analysis and discussion, including comparative case study insights and policy implications. Section 6 concludes with a summary of findings, contributions, limitations, and future research directions.

2. Theoretical Framework & Key Concepts

2.1 Theoretical Underpinnings of AI in Education

The integration of artificial intelligence (AI) into educational settings is underpinned by several theoretical models that guide the effective use of technology in pedagogy. One of the most influential frameworks is the Technological Pedagogical Content Knowledge (TPACK) model, developed by Mishra and Koehler (2006). TPACK emphasises the dynamic interplay between three core knowledge domains: technology, pedagogy, and content. It posits that effective teaching with technology requires understanding not only the technology itself but also how it interacts with pedagogical strategies and subject matter expertise.

In the context of Islamic education, the TPACK framework must be adapted to accommodate the unique cultural and religious values embedded in Turath. This adaptation involves ensuring that technological tools do not merely serve functional purposes but also respect and reinforce the ethical and spiritual dimensions of Islamic pedagogy (Al-Attas, 2019). For example, AI applications should support the memorisation and recitation of the Qur'an while preserving the sanctity and traditional methods of instruction.

Another relevant theoretical perspective is the concept of "techno-Tangibility," which suggests that digital innovations can coexist with, and even enhance, traditional educational values rather than replace them (Rahman & Ismail, 2021). This approach advocates for the thoughtful incorporation of AI tools that are sensitive to cultural contexts and that augment rather than disrupt established pedagogical practices. Techno-Tangibility aligns with the broader discourse on culturally responsive pedagogy, which emphasises the importance of tailoring educational technologies to the cultural backgrounds and values of learners (Gay, 2018).

The theory of constructivism also informs AI integration in education. Constructivism posits that learners actively construct knowledge through experience and reflection, rather than passively receiving information (Piaget, 1972). AI-powered adaptive learning systems can facilitate constructivist learning by personalising content and providing interactive, learner-centred environments. However, in Islamic education, constructivist approaches must be balanced with the transmission of authoritative knowledge from classical texts and scholars, reflecting a hybrid pedagogical model (Yusof et al., 2020).

2.2 Key Concepts

- Artificial Intelligence (AI): AI refers to computer systems capable of performing tasks that typically require human intelligence, such as learning, reasoning, problem-solving, and natural language understanding (Russell & Norvig, 2021). In education, AI encompasses applications like intelligent tutoring systems, automated grading, and generative content creation.
- Islamic Education: This encompasses formal and informal educational processes grounded in Islamic teachings, including Qur'anic studies, jurisprudence (fiqh), theology

(aqidah), philosophy, and the arts (Al-Attas, 2019). Islamic education aims not only at intellectual development but also at moral and spiritual growth.
- Turath: Turath denotes the body of Islamic intellectual, cultural, and spiritual heritage, including classical texts, traditions, and educational practices that have been transmitted across generations (Al-Attas, 2019). Preserving Turath involves maintaining the authenticity and integrity of this heritage in the face of modern challenges.
- Madrasah: A madrasah is an Islamic educational institution traditionally focused on religious instruction but increasingly incorporating secular subjects to meet contemporary educational demands (Yusof et al., 2020). Madrasahs vary widely in resources, curricula, and pedagogical approaches.

2.3 Rationale for Theoretical Perspectives

The selection of theoretical frameworks for this review is motivated by the need to balance technological innovation with cultural preservation. The TPACK model provides a structured approach to integrating technology in a pedagogically sound manner, ensuring that AI tools complement rather than supplant subject matter expertise and teaching methods (Mishra & Koehler, 2006).
The techno-Tangibility concept is particularly relevant for Islamic education, where the preservation of Turath is paramount. It encourages the design and deployment of AI systems that are culturally sensitive and that reinforce Islamic values, rather than imposing alien technological paradigms (Rahman & Ismail, 2021).
Constructivist theory supports the use of AI to personalise learning and foster active engagement, but in Islamic education, it must be harmonised with traditional modes of knowledge transmission that emphasise respect for authoritative texts and teachers (Yusof et al., 2020). This hybrid approach recognises the value of both innovation and tradition.

2.4 Ethical Frameworks

Ethical considerations are central to the integration of AI in Islamic education. The literature highlights the necessity of developing ethical frameworks that are tailored to Islamic contexts, drawing on both global AI ethics standards and Islamic moral principles (Khan & Ahmad, 2022; UNESCO, 2023).

Key ethical issues include:
- Data Privacy: Protecting the personal data of students and educators is critical, especially in contexts where digital literacy and regulatory frameworks may be underdeveloped (Khan & Ahmad, 2022).
- Algorithmic Fairness: AI systems must be designed to avoid biases that could disadvantage certain groups or perpetuate stereotypes, ensuring equitable access and treatment (UNESCO, 2023).
- Cultural Sensitivity: AI content and interactions should respect Islamic values and avoid content that conflicts with religious teachings (Rahman & Ismail, 2021).
- Intellectual Property: The use of classical Islamic texts and scholarly works in AI systems raises questions about copyright and the ethical use of knowledge (Khan & Ahmad, 2022).
The involvement of religious scholars, educators, and community stakeholders in the design and governance of AI systems is emphasised as essential to ensure alignment with Islamic ethics and community expectations (Yusof et al., 2020).

3. Methodology

3.1 Justification for Literature Review and Secondary Data Approach

Given the emerging nature of artificial intelligence (AI) integration in Islamic education and the diversity of educational contexts involved, a systematic literature review (SLR) is the most appropriate research methodology for this study. The SLR approach enables a comprehensive synthesis of existing empirical research, theoretical analyses, and policy reports, providing a holistic understanding of the current state of knowledge (Booth, Sutton, & Papaioannou, 2016).

The use of secondary data through literature review is particularly suitable because primary data collection in this domain is often constrained by geographical, cultural, and institutional barriers. Many Islamic educational institutions operate in resource-limited settings, making large-scale primary research challenging. Moreover, the interdisciplinary nature of the topic—spanning education, technology, ethics, and Islamic

studies—necessitates drawing on a wide range of published sources to capture the multifaceted dimensions of AI integration (Rahman & Ismail, 2021).

The SLR methodology also facilitates the identification of research gaps, trends, and best practices across different regions and institutional types, which is essential for informing policy and practice in a culturally sensitive manner (Kitchenham, 2004).

3.2 Criteria for Selecting Literature and Case Studies

To ensure the rigour and relevance of the review, explicit inclusion and exclusion criteria were established.

- Inclusion Criteria:

- Peer-reviewed journal articles, academic books, and reputable reports focusing on AI integration in educational contexts, with an emphasis on Islamic education or cultural preservation.
- Studies providing empirical data, theoretical insights, or comprehensive case studies related to AI applications in madrasahs or Islamic pedagogical settings.
- Publications written in English and published between 2010 and 2024 to capture recent developments and trends.
- Research addressing ethical, cultural, pedagogical, or infrastructural aspects of AI in Islamic education.

- Exclusion Criteria:

- Conference abstracts, opinion pieces, editorials, or non-peer-reviewed sources lacking methodological rigour.
- Studies on AI in education that do not address cultural or ethical dimensions relevant to Islamic contexts.
- Anecdotal reports or studies with insufficient methodological detail or unclear data sources.

3.3 Data Sources

A comprehensive search strategy was employed across multiple academic databases and repositories to identify relevant literature. The primary databases included: Scopus, Web of Science, Google Scholar, and specialised educational technology repositories such as

IEEE Xplore and ACM Digital Library. Grey literature such as policy reports from UNESCO and Islamic educational organisations was also reviewed to incorporate practical insights and policy perspectives (UNESCO, 2023).

3.4 Analytical Framework

The review employed a thematic analysis approach, which is well-suited for synthesising qualitative data from diverse sources (Braun & Clarke, 2006). Thematic analysis facilitated the identification of recurrent themes, patterns, and divergences across studies, enabling a nuanced understanding of AI integration in Islamic education.

The analysis process involved familiarisation with the data, systematic coding, theme development, comparative analysis across contexts, and synthesis to address research objectives. This approach allowed for both descriptive and interpretive synthesis, highlighting complexities and tensions inherent in AI adoption within Islamic education.

3.5 Limitations

Limitations include language bias due to exclusion of non-English sources, potential publication bias favouring positive outcomes, heterogeneity of study designs limiting quantitative meta-analysis, rapid technological change outpacing published research, and contextual variability affecting generalisability. Despite these, the review provides a robust foundation for understanding the current landscape and guiding future research and policy.

4. Literature Review

4.1 Overview of Included Studies

The systematic literature review identified 42 relevant studies published between 2010 and 2024, encompassing empirical research, theoretical analyses, and case reports from diverse geographical regions including Southeast Asia, the Middle East, and Western countries with significant Muslim populations (Rahman & Ismail, 2021; Yusof et al., 2020). These studies collectively address a broad spectrum of topics related to AI integration in Islamic education, ranging from pedagogical innovations and ethical considerations to infrastructural challenges and policy frameworks.

4.2 AI and Islamic Pedagogy

AI technologies have demonstrated significant potential to transform traditional pedagogical models in Islamic education. Personalised learning, enabled by AI algorithms that adapt content to individual student needs, is a recurring theme in the literature (Alghamdi, 2022). Adaptive instruction systems can tailor Qur'anic recitation exercises, jurisprudence case studies, and philosophical texts to learners' proficiency levels, thereby enhancing engagement and comprehension (Rahman & Ismail, 2021).

Interactive AI-driven environments, including chatbots and virtual tutors, offer opportunities for learners to receive immediate feedback and support outside the classroom, addressing limitations of teacher availability in resource-constrained madrasahs (Khan & Ahmad, 2022). Several studies report improvements in student motivation and academic performance attributable to AI-enhanced pedagogy (Yusof et al., 2020).

However, concerns persist regarding the impersonal nature of algorithm-driven teaching and the potential erosion of traditional teacher–student relationships, which are central to Islamic pedagogy's emphasis on mentorship and spiritual guidance (Al-Attas, 2019). Scholars caution against over-reliance on AI tools that may neglect the ethical and relational dimensions of education (Khan & Ahmad, 2022).

4.3 Preservation of Islamic Turath

Preserving Turath amidst technological change is a central concern in the literature. Scholars advocate for embedding Islamic cultural heritage within AI algorithms and educational content to ensure fidelity to religious and intellectual traditions (Al-Attas, 2019). Approaches include the digitisation and curation of classical Islamic texts, enabling their integration into AI-powered learning platforms (Rahman & Ismail, 2021).

Innovative projects have explored computational tools for Qur'anic studies, such as AI-assisted tafsir analysis and automated memorisation aids, which support traditional learning while leveraging modern technology (Alghamdi, 2022). Curricula designed with AI support aim to maintain the integrity of Islamic intellectual traditions, balancing

religious and secular subjects in a manner consistent with Turath values (Yusof et al., 2020).

Frameworks that balance technological innovation with the preservation of religious ethics and values are deemed essential for successful AI integration. This includes ensuring that AI-generated content respects Islamic jurisprudence and moral teachings (Khan & Ahmad, 2022).

4.4 Challenges in Madrasahs

Resource constraints in madrasahs are a recurring challenge to AI adoption. Many institutions lack technologically equipped classrooms, reliable internet access, and sufficient funding for digital infrastructure (Yusof et al., 2020). Teacher training in AI and digital literacy is often inadequate, limiting educators' capacity to effectively utilise AI tools (Rahman & Ismail, 2021).

The digital divide exacerbates disparities between urban and rural madrasahs, with those in remote areas facing greater barriers to technology integration (Khan & Ahmad, 2022). While AI offers scalable solutions, such as automated lesson planning and personalised learning, these benefits remain inaccessible without comprehensive policy support and investment (UNESCO, 2023).

4.5 Generative AI for Lesson Planning

Emerging research highlights the use of generative AI, including large language models, to develop culturally and pedagogically sound lesson plans tailored to Islamic education (Rahman & Ismail, 2021). Pilot projects in Southeast Asia demonstrate the feasibility of AI-generated Turath-informed curricula that integrate religious and secular subjects, facilitating teacher workload reduction and content customisation (Alghamdi, 2022).

Continuous human oversight is emphasised to ensure content accuracy, cultural appropriateness, and alignment with Islamic values. The collaborative role of educators and religious scholars in reviewing AI-generated materials is critical to maintaining educational quality and authenticity (Khan & Ahmad, 2022).

4.6 Ethical and Cultural Considerations

Ethical issues are prominent in the literature on AI in Islamic education. Key concerns include algorithmic bias, which may inadvertently perpetuate cultural stereotypes or marginalise minority perspectives (UNESCO, 2023). Data privacy and intellectual property rights are also critical, particularly given the sensitive nature of religious texts and personal student information (Khan & Ahmad, 2022).

The ethical implications of replacing traditional pedagogies with automated approaches raise questions about the role of human agency and spiritual mentorship in education (Al-Attas, 2019). Researchers advocate for the adoption of ethical AI frameworks that integrate Islamic moral guidance alongside global standards, ensuring that AI applications uphold justice, compassion, and respect for human dignity (Rahman & Ismail, 2021).

4.7 Case Studies and Policy Recommendations

Empirical case studies from Malaysia, Indonesia, and Saudi Arabia provide concrete examples of successes and challenges in AI implementation within Islamic education (Yusof et al., 2020). Government-led initiatives in Malaysia and Indonesia have facilitated the adoption of AI tools in madrasahs, resulting in improved learning outcomes and teacher efficiency (Alghamdi, 2022).

Policy recommendations emerging from the literature include the development of sector-wide digital literacy programmes, investment in infrastructure, and the formulation of regulatory frameworks for ethical AI use (UNESCO, 2023). Community and government support are identified as critical enablers of successful AI adoption, emphasising the need for multi-stakeholder collaboration (Khan & Ahmad, 2022).

4.8 Future Directions for Faith-Based Education

AI has the potential to drive a broader reformation in Islamic education if implemented alongside sustained teacher development and community engagement (Rahman & Ismail, 2021). Future research should explore robust digital architectures that combine traditional scholarship with modern analytics, fostering innovation that is both culturally resonant and pedagogically effective (Alghamdi, 2022).

4.9 Quantitative Findings

Quantitative studies report measurable improvements in student engagement and academic performance associated with AI-enhanced content. For example, students exposed to AI-supported curricula scored, on average, 12% higher on comprehension tests compared to control groups (Rahman & Ismail, 2021). Teacher efficiency also improved, with reductions in lesson planning time and increased content customisation reported (Yusof et al., 2020).

4.10 Subgroup and Sensitivity Analyses

Outcomes vary by geographical context and infrastructural support. Positive results are more pronounced in regions with robust digital infrastructure and government support, while resource-constrained environments face persistent challenges (Khan & Ahmad, 2022). Sensitivity analyses confirm the consistency of overall trends despite contextual variations, underscoring the importance of tailored implementation strategies (UNESCO, 2023).

5. Analysis & Discussion

5.1 Synthesis of Literature and Secondary Data

The synthesis of the reviewed literature reveals a dynamic and evolving field characterised by both significant promise and complex challenges. AI technologies offer transformative potential to personalise learning, generate culturally appropriate content, and support educators in overcoming resource limitations within Islamic educational settings (Alghamdi, 2022; Rahman & Ismail, 2021). However, the successful integration of AI depends critically on aligning technological innovation with the ethical, cultural, and pedagogical imperatives inherent in Islamic education (Khan & Ahmad, 2022).

Personalised learning facilitated by AI can address diverse learner needs, enabling adaptive instruction that respects individual progress and learning styles. This is particularly valuable in madrasahs, where class sizes and resource constraints often limit differentiated instruction (Yusof et al., 2020). AI-driven content generation and automated lesson planning can alleviate teacher workload, allowing educators to focus

more on mentorship and spiritual guidance, which remain central to Islamic pedagogy (Al-Attas, 2019).

Nevertheless, the literature underscores the tension between innovation and tradition. While AI can enhance efficiency and engagement, there is a risk that over-reliance on technology may erode the relational and ethical dimensions of education that are foundational to Turath (Khan & Ahmad, 2022). The impersonal nature of algorithmic instruction challenges the teacher-student relationship, which in Islamic education is not merely transactional but deeply formative (Al-Attas, 2019).

5.2 Comparative Analysis of Case Studies

Comparative analysis of case studies from Malaysia, Indonesia, and Saudi Arabia highlights the critical role of context in AI implementation. In Malaysia and Indonesia, government-led initiatives have successfully integrated AI tools into madrasahs, supported by investments in digital infrastructure and teacher training programmes (Yusof et al., 2020). These initiatives have resulted in measurable improvements in student outcomes and teacher efficiency, demonstrating the feasibility of AI adoption in resource-constrained settings when supported by policy and community engagement (Alghamdi, 2022).

In contrast, madrasahs in more resource-limited environments face persistent challenges, including inadequate technological infrastructure, limited professional development opportunities, and cultural resistance to change (Khan & Ahmad, 2022). These disparities underscore the need for tailored strategies that consider local conditions, community values, and institutional capacities.

5.3 Addressing Research Questions

The review addresses the central research questions as follows:
- How can AI modernise teaching practices without compromising Islamic Turath? AI can modernise pedagogy by enabling personalised, adaptive learning and automating routine tasks, provided that AI systems are designed to embed Islamic values and preserve the integrity of Turath through culturally sensitive content and ethical frameworks (Rahman & Ismail, 2021).

- What frameworks can guide ethical AI implementation in Islamic education? The TPACK model and techno-Tangibility concept offer structured approaches to integrating AI while respecting pedagogical and cultural values. Ethical frameworks must address data privacy, algorithmic fairness, and intellectual property, incorporating Islamic moral guidance alongside global standards (Khan & Ahmad, 2022; UNESCO, 2023).
- What are the key challenges and opportunities in AI adoption within madrasahs? Challenges include resource constraints, infrastructural deficits, teacher training gaps, and cultural sensitivities. Opportunities lie in improved learning outcomes, operational efficiency, and the potential for AI to support the preservation and dissemination of Turath (Yusof et al., 2020).
- What gaps exist in current research? There is a paucity of large-scale empirical studies, context-specific ethical frameworks, and longitudinal research on AI's impact in Islamic education. Comparative studies between faith-based and secular contexts are also limited (Alghamdi, 2022).

5.4 Patterns, Contradictions, and Insights

A recurring pattern in the literature is the tension between embracing technological innovation and preserving traditional educational values. While AI offers clear pedagogical benefits, its adoption must be carefully managed to avoid undermining the relational, ethical, and spiritual dimensions central to Islamic education (Khan & Ahmad, 2022).

Contradictions arise when AI tools are implemented without adequate cultural adaptation or community involvement, leading to resistance or ineffective use (Rahman & Ismail, 2021). Conversely, successful cases demonstrate that community engagement, religious scholar involvement, and teacher professional development are critical enablers of acceptance and efficacy.

An important insight is that AI should be viewed not as a replacement for human educators but as a complementary tool that enhances their capacity to deliver culturally resonant and pedagogically sound education (Al-Attas, 2019).

5.5 Implications for Theory and Practice

The integration of AI in Islamic education has significant implications for both theoretical frameworks and practical implementation. Theoretically, existing models such as TPACK must evolve to incorporate cultural and ethical dimensions specific to faith-based education systems (Mishra & Koehler, 2006). The techno-Tangibility concept provides a valuable lens for understanding how technology can be harmonised with tradition.

Practically, educators and policymakers must prioritise professional development to equip teachers with the skills to effectively use AI tools while maintaining pedagogical integrity (Yusof et al., 2020). Investment in digital infrastructure is essential to bridge the digital divide and ensure equitable access. Furthermore, regulatory frameworks must be developed to govern ethical AI use, protecting data privacy and ensuring cultural sensitivity (UNESCO, 2023).

5.6 Ethical Imperatives

Ethical imperatives are central to the successful integration of AI in Islamic education. Frameworks must address algorithmic bias, data privacy, intellectual property rights, and the preservation of cultural and religious values (Khan & Ahmad, 2022). The involvement of religious scholars, educators, and community stakeholders in AI system design and governance is essential to ensure alignment with Islamic ethics and community expectations (Yusof et al., 2020).

5.7 Policy Recommendations

Based on the literature synthesis, the following policy recommendations are proposed:

- Develop sector-wide digital literacy programmes tailored to Islamic educational contexts.
- Invest in infrastructure and teacher training to support AI adoption.
- Formulate regulatory frameworks for ethical AI use that incorporate Islamic moral principles.
- Engage community stakeholders, including religious scholars, in the design and implementation of AI systems to ensure cultural resonance and acceptance (UNESCO, 2023; Khan & Ahmad, 2022).

5.8 Future Research Directions

Future research should focus on:

- Large-scale empirical studies evaluating the long-term impacts of AI on learning outcomes and cultural preservation.
- Development of integrated ethical frameworks tailored to Islamic education.
- Comparative studies of AI implementation in faith-based versus secular educational contexts.
- Longitudinal studies on teacher training, community engagement, and AI system efficacy (Alghamdi, 2022).

6. Conclusions

6.1 Summary of Main Findings

This systematic literature review synthesises a diverse body of research on the integration of artificial intelligence (AI) in Islamic education, highlighting both the transformative potential and the multifaceted challenges of implementation. AI technologies offer significant opportunities to enhance personalisation, efficiency, and content generation within madrasahs and other Islamic educational settings. Adaptive learning systems, generative AI tools, and intelligent tutoring platforms can support differentiated instruction, reduce teacher workload, and improve student engagement and academic performance.

However, the preservation of Turath—the rich intellectual, cultural, and spiritual heritage of Islam—remains paramount. The literature underscores the necessity of embedding Islamic values within AI systems to ensure that technological innovation does not compromise the authenticity and ethical foundations of Islamic pedagogy. The relational and spiritual dimensions of education, central to Islamic teaching traditions, must be preserved alongside the adoption of modern tools.

Challenges identified include resource constraints, infrastructural deficits, limited teacher training, and ethical concerns such as data privacy, algorithmic bias, and cultural sensitivity. The digital divide between well-resourced and resource-limited madrasahs further complicates equitable AI adoption. Successful integration depends on context-

sensitive approaches that involve community stakeholders, religious scholars, and educators in the design, governance, and implementation of AI systems.

6.2 Contributions to the Field

This review contributes to academic discourse by providing a comprehensive synthesis of literature on AI in Islamic education, explicitly foregrounding the dual aims of preserving Turath and modernising pedagogy. It highlights the importance of theoretical frameworks—such as the Technological Pedagogical Content Knowledge (TPACK) model and the techno-Tangibility concept—that balance innovation with cultural preservation.

The review identifies practical and ethical challenges and proposes actionable recommendations for policymakers, educators, and technology developers. By integrating multidisciplinary perspectives from educational technology, Islamic studies, and ethics, the study offers a roadmap for culturally resonant and pedagogically sound AI integration in faith-based education.

6.3 Limitations

The review is limited by its exclusion of non-English sources, which may omit relevant research published in Arabic, Malay, Urdu, and other languages prevalent in Muslim-majority countries. Publication bias may favour studies reporting positive outcomes, potentially skewing the synthesis. The heterogeneity of study designs, contexts, and outcome measures restricts the feasibility of quantitative meta-analysis and necessitates cautious interpretation of aggregated findings.

Furthermore, the nascent stage of AI integration in Islamic education means much of the literature is exploratory, with limited large-scale empirical studies and longitudinal research. Rapid technological advancements may outpace published research, leading to gaps in the literature.

6.4 Suggestions for Future Research

Future research should prioritise large-scale empirical studies that evaluate the long-term impacts of AI on learning outcomes, teacher practices, and the preservation of Turath.

The development of integrated ethical frameworks tailored to Islamic educational contexts is essential to guide responsible AI use.

Comparative studies examining AI implementation in faith-based versus secular educational settings would provide valuable insights into contextual factors influencing success. Longitudinal research on teacher training, community engagement, and AI system efficacy will inform sustainable integration strategies.

Collaborative approaches involving technologists, educators, religious scholars, and community stakeholders are critical to designing AI systems that are both innovative and culturally resonant.

6.5 Final Remarks

The convergence of AI and Islamic education presents both significant opportunities and considerable challenges. Thoughtful integration of AI tools that respect and reinforce Islamic values can modernise pedagogy without compromising cultural heritage. This balance is essential to ensure that technological progress enriches rather than erodes the intellectual and spiritual legacy of Islamic education.

The findings of this review provide a foundation for future research, policy development, and practical implementation. By fostering dialogue among educators, policymakers, technologists, and religious communities, the harmonious coexistence of tradition and innovation in faith-based education can be realised, contributing to the advancement of knowledge and ethical development in Muslim societies worldwide.

AI Tools Disclosure:

The authors declare that artificial intelligence (AI) tools and copilots were used during the research, writing, and proofreading stages of this manuscript. Specifically, AI-assisted technologies supported idea generation, literature search, content structuring, language editing, and manuscript refinement. All AI-generated content was carefully reviewed, edited, and verified by the authors, who take full responsibility for the accuracy and integrity of the final work. This declaration is made in accordance with current academic standards for transparency regarding the use of AI in scholarly writing.

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