

ARTIFICIAL INTELLIGENCE AND THE FUTURE OF ISLAMIC EDUCATION: REIMAGINING PEDAGOGY, ETHICS, AND LEARNING PRACTICES

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ABSTRACT

Artificial intelligence (AI) is increasingly transforming educational practices, including Islamic Religious Education (IRE), by enabling personalized learning, instructional assistance, content generation, assessment support, and broader access to knowledge. However, its integration into Islamic education raises distinctive pedagogical, ethical, and epistemological challenges concerning source authenticity, religious authority, academic integrity, teacher mediation, and responsible use. This study aims to examine how AI is reshaping Islamic education and to identify the pedagogical, ethical, epistemological, and learning-practice implications of its integration. A qualitative systematic literature review was conducted using relevant peer-reviewed literature published primarily between 2020 and 2026 and identified through major academic databases. The literature was analyzed thematically around AI-enhanced pedagogy, AI literacy, religious knowledge and epistemic authority, Islamic ethics, teacher and learner agency, assessment, and institutional governance. The findings indicate that AI has considerable potential to support personalized learning, instructional design, feedback, independent learning, and access to educational resources. Nevertheless, AI should function primarily as an assistive technology rather than a replacement for teachers or religious authorities. The study further demonstrates that effective AI integration requires critical AI literacy encompassing technical, ethical, critical, and epistemic competencies. Human verification remains particularly important when AI is used to access or generate religious knowledge. The study proposes a human-centred approach that integrates AI-enhanced pedagogy, critical AI literacy, Islamic ethical-epistemological guidance, human agency, and institutional governance. The study concludes that the future of Islamic education depends not merely on technological adoption but on the ability to align AI innovation with the intellectual, moral, spiritual, and human purposes of education.

Keywords: *Artificial Intelligence; Islamic Education; AI Literacy; Islamic Ethics; Human-Centred Learning*

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I. INTRODUCTION

Artificial Intelligence (AI) has rapidly transformed contemporary education by changing how knowledge is accessed, generated, communicated, and evaluated. The emergence of generative AI, intelligent tutoring systems, adaptive learning platforms, automated assessment, and AI-supported content creation has created new possibilities for personalized and flexible learning. At the same time, AI introduces fundamental questions concerning data privacy, academic integrity, algorithmic bias, human agency, and the changing relationship between teachers and learners. UNESCO (2023) emphasizes that generative AI requires education systems to develop human-centred, ethical, safe, equitable, and meaningful approaches to its use, particularly because technological development has progressed faster than many institutional regulatory frameworks. The transformation is therefore not simply technological but pedagogical, requiring educators to reconsider how teaching, learning, assessment, and knowledge production are organized.

The increasing presence of AI also changes the traditional configuration of the teacher–student relationship. AI systems can provide explanations, generate learning materials, offer feedback, support assessment, and assist students in solving problems, creating an emerging teacher–AI–student dynamic. UNESCO's AI Competency Framework for Teachers identifies 15 competencies across five dimensions—human-centred mindset, ethics of AI, AI foundations and applications, AI pedagogy, and AI for professional learning—indicating that teachers need more than technical familiarity with AI. They require the capacity to make pedagogically and ethically informed decisions concerning when, why, and how AI should be used. This shift suggests that AI should not be understood as a substitute for teachers but as a technology that requires teachers to assume increasingly complex roles as pedagogical designers, ethical mediators, critical evaluators, and facilitators of meaningful learning.

These developments are particularly significant for Islamic education, whose educational objectives extend beyond cognitive achievement and technological competence. Islamic education traditionally emphasizes the integrated development of knowledge, character, spirituality, morality, and *adab*. Consequently, the introduction of AI raises a distinctive question: how can technological innovation enhance learning without reducing education to efficiency, information processing, or automated knowledge transmission? Recent

research specifically examining AI in Islamic Religious Education identifies both pedagogical opportunities and ethical challenges, including personalization, learning efficiency, algorithmic bias, privacy, academic integrity, and the changing responsibilities of teachers (Setiaji & Sudirja, 2026). Similarly, research on AI-mediated Islamic education argues that AI is transforming pedagogical communication while simultaneously raising deeper questions about religious knowledge transmission, moral formation, and ethical responsibility (Albar et al., 2026).

From an Islamic ethical perspective, AI integration requires a framework that connects technological innovation with principles of human dignity, responsibility, justice, and public benefit. Recent scholarship has explored *maqāṣid al-sharī'ah* as a framework for evaluating AI in Islamic education. Supriatin et al. (2025), for example, formulate an ethical approach based on the protection of religion (*ḥifẓ al-dīn*), intellect (*ḥifẓ al-'aql*), life (*ḥifẓ al-nafs*), wealth (*ḥifẓ al-māl*), and lineage (*ḥifẓ al-nasl*). This perspective suggests that AI should be assessed not only according to its technical performance but also according to its consequences for human dignity, intellectual development, religious understanding, privacy, social responsibility, and moral formation. Rahman and Ghifari (2025) similarly argue that AI-supported learning can improve educational efficiency but should remain governed by principles of trust, justice, *adab*, and *maqāṣid al-sharī'ah*.

AI nevertheless offers substantial opportunities for reimagining Islamic pedagogical practices. AI-supported learning can facilitate personalized instruction, differentiated learning pathways, automated feedback, interactive learning materials, language learning, assessment, and learning analytics. Within Islamic education, these technologies may support students with different learning needs while allowing teachers to devote greater attention to mentoring, discussion, reflection, and character formation. Research on AI integration in Islamic Religious Education reports potential improvements in student engagement and personalized learning when AI is implemented under appropriate teacher guidance (2025). Research on Muslim students' acceptance of AI in Islamic Religious Education also demonstrates that students' adoption of AI is an increasingly relevant empirical issue, indicating that technological integration should consider learners' perceptions, usefulness, attitudes, and educational contexts rather than assuming automatic acceptance (Faizin et al., 2025). Thus, the pedagogical question is not whether AI should enter Islamic

education, but how its capabilities can be incorporated into learning designs that preserve meaningful human interaction and educational purpose.

The potential benefits of AI, however, are accompanied by significant ethical and epistemological challenges. AI systems can generate inaccurate information, reproduce biases, provide fabricated references, or produce apparently authoritative answers without adequately explaining their evidentiary basis. These concerns become particularly important in Islamic education because learners may use AI to obtain explanations concerning the Qur'an, Hadith, Islamic jurisprudence, theology, ethics, and religious history. Incorrect or decontextualized AI-generated religious information can therefore have implications beyond ordinary academic error. Recent research on the ethics of AI in Islamic education highlights concerns involving algorithmic bias, data privacy, academic integrity, and the need for human oversight. The problem consequently involves not only the accuracy of AI-generated information but also questions concerning who is responsible for validating religious knowledge and how authority should be negotiated in AI-mediated learning environments.

This challenge requires a reconsideration of the concept of learning authority in Islamic education. Traditionally, religious knowledge is transmitted through teachers, scholars, texts, institutions, and established interpretive traditions. Generative AI introduces another source of information that can respond instantly and conversationally to students' questions. However, accessibility does not necessarily imply authority. AI can synthesize information but does not inherently possess religious authority, spiritual responsibility, or contextual understanding equivalent to qualified educators and scholars. Recent studies on AI and Islamic education consequently emphasize that AI should function as a supporting instrument rather than replace the teacher's intellectual, ethical, and formative role. This distinction is essential for maintaining epistemic responsibility in Islamic education while still benefiting from technological innovation.

The transformation also requires a new understanding of teacher competence. Teachers need to understand the capabilities and limitations of AI, critically evaluate AI-generated content, design meaningful AI-assisted learning activities, protect students' data, and establish appropriate boundaries for AI use. UNESCO (2024) places human agency and ethical responsibility at the centre of AI competency, emphasizing that teachers should be able to make informed judgments concerning AI rather than simply operate AI tools. Recent research in Islamic education reaches a similar conclusion, identifying teacher training and

value-conscious AI use as essential conditions for sustainable AI integration. Khoiruddin and Dzulkifli (2026), for instance, emphasize the importance of teacher preparation, ethical alignment, cultural sensitivity, and sustainable strategies in integrating AI into Islamic education. Therefore, AI literacy for Islamic educators should encompass not only technical skills but also pedagogical judgment, ethical reasoning, religious literacy, and critical digital competence.

At the learner level, AI similarly requires the development of critical and ethical AI literacy. Students should not merely know how to generate text, summarize information, or obtain answers through AI applications. They need to evaluate the reliability of outputs, compare AI-generated information with authoritative sources, recognize bias and uncertainty, protect personal information, and understand the ethical consequences of using AI. UNESCO's human-centred approach emphasizes that AI should strengthen rather than undermine human agency, intellectual development, and responsible decision-making. Within Islamic education, these competencies can be connected with concepts such as *amanah* (responsibility), *adab* (ethical conduct), *sidq* (truthfulness), *'adl* (justice), and *maslahah* (public benefit). Such an approach would allow AI literacy to become part of moral and intellectual education rather than being treated exclusively as a technical skill.

The institutional dimension is equally important. The implementation of AI in Islamic education requires policies concerning acceptable AI use, academic integrity, data protection, assessment redesign, teacher development, and the validation of religious learning materials. Without institutional guidance, the use of AI may become inconsistent, potentially widening inequalities between students and institutions with different levels of technological access and digital competence. UNESCO (2023) emphasizes the importance of institutional preparedness, regulatory frameworks, privacy protection, and age-appropriate use of generative AI in education. Recent research in Islamic education likewise recommends institutional policies, teacher AI literacy, ethical standards, and human oversight to ensure that technological integration remains consistent with educational and Islamic values. AI governance should therefore become part of educational management rather than being left entirely to individual teachers or students.

Despite the growing body of research on AI in education, a significant conceptual gap remains in understanding how AI should reshape Islamic education as a whole. Existing studies frequently focus on technological

opportunities, student acceptance, teacher competence, or ethical risks as separate issues. Other studies emphasize Islamic ethical principles such as *maqāṣid al-sharīʿah* without sufficiently connecting them to concrete pedagogical practices. Recent scholarship has begun to address this gap by examining the interaction between AI, pedagogy, ethics, and teacher competencies, but the field remains relatively fragmented. A more integrated perspective is therefore needed to connect AI-supported pedagogy, Islamic ethics, teacher agency, learner agency, knowledge authority, and institutional governance.

Accordingly, this study examines Artificial Intelligence and the Future of Islamic Education by focusing on three interconnected dimensions: pedagogical transformation, ethical responsibility, and AI-supported learning practices. The study aims to synthesize emerging scholarship and develop a conceptual understanding of how AI can be incorporated into Islamic education without displacing its human, moral, and spiritual foundations. Rather than viewing AI primarily as a replacement for teachers or a mechanism for maximizing educational efficiency, this study positions AI as a supportive pedagogical technology embedded within an ethically grounded educational ecosystem. In this perspective, the future of Islamic education depends not on how extensively AI can automate learning, but on how intelligently educators can use AI while preserving human agency, religious knowledge integrity, character formation, *adab*, and the broader purposes of Islamic education.

II. LITERATURE REVIEW

The relationship between Artificial Intelligence (AI) and education has increasingly shifted from a discussion of technological adoption toward a broader examination of pedagogical transformation. Earlier educational technologies primarily functioned as tools for delivering or accessing instructional materials, whereas contemporary AI systems can generate content, provide explanations, adapt learning pathways, analyze student responses, and participate in conversational interactions. This development creates a more complex educational environment in which learning is increasingly mediated by interactions among teachers, learners, digital systems, and AI-generated knowledge. Recent scholarship therefore conceptualizes AI not simply as an instructional technology but as an emerging pedagogical agent that can influence how teaching and learning are designed and experienced. Ulya and Irsyad (2026), through a

systematic review of AI integration in Islamic education, identify pedagogical transformation as one of the central consequences of AI adoption, particularly in relation to personalized learning, teacher roles, and learning interaction.

Within this transformation, AI-supported personalized learning represents one of the most frequently discussed pedagogical possibilities. AI systems can analyze learner responses and provide differentiated materials, explanations, exercises, or feedback according to individual learning needs. Amilusholihah and Ramadhan (2025), in their systematic literature review, report that AI applications in Islamic education can support personalized learning, accessibility, student motivation, critical thinking, creativity, and learning efficiency. Similarly, Panjaitan et al. (2025) demonstrate that AI integration in Islamic Religious Education can be associated with students' learning independence, although the educational effects depend substantially on how AI is incorporated into instructional processes. These findings suggest that personalization should not be understood merely as technological automation. Its educational value depends on whether AI-supported differentiation enables learners to engage more deeply with learning objectives and whether teachers remain actively involved in interpreting learner needs.

The literature also emphasizes that AI can facilitate interactive and adaptive learning practices. ChatGPT and similar generative AI systems allow learners to ask questions, request explanations, generate examples, simulate discussions, and receive immediate responses. Mukarohmah et al. (2024) found that ChatGPT can enhance two-way interaction, learning flexibility, and personalized learning in Islamic Religious Education, while simultaneously raising concerns regarding information reliability and technological dependence. Taha and Ajmain (2026) similarly identify ChatGPT as a potential learning-support tool for undergraduate Islamic Education students, particularly in relation to understanding, motivation, and learning skills. The literature consequently suggests that generative AI can expand learning opportunities, but its pedagogical contribution depends on the quality of interaction that surrounds its use.

A related area of scholarship concerns AI literacy as a new dimension of educational competence. AI literacy is broader than the ability to operate AI applications. It includes understanding how AI systems function, evaluating their outputs, recognizing limitations and bias, and making responsible decisions about their use. Chiu et al. (2024) conceptualize AI literacy and AI competency as related but distinguish knowledge and understanding from the ability to apply such

knowledge beneficially and responsibly. Their framework emphasizes both curricular content and pedagogical processes. Yim et al. (2024) similarly argue that AI literacy intersects with digital literacy, data literacy, computational thinking, and AI ethics, requiring a transdisciplinary educational approach rather than a narrowly technical curriculum. Thus, AI literacy should be positioned as a form of critical literacy that enables learners to understand not only what AI can do but also what AI should and should not do.

The literature further demonstrates that AI literacy has a strong ethical and socio-cultural dimension. Lindberg (2024) argues that AI literacy within technology education should include technological knowledge together with socio-ethical understanding, particularly awareness of the relationship between humans and AI systems. This perspective is important for Islamic education because the educational objective is not merely to produce technologically capable users but individuals capable of making morally responsible decisions. AI literacy in Islamic education can therefore be connected to intellectual responsibility, ethical reasoning, *adab*, and responsible use of knowledge. Such an approach expands the concept of digital competence from operational skill toward ethical and reflective engagement.

Another important theme concerns critical thinking and human cognitive agency. AI can provide rapid answers, but easy access to generated responses may also encourage passive dependence if students are not required to question, verify, compare, and interpret the information they receive. Hanifaa and As'ad (2025) specifically examine AI in Islamic education as a mechanism for developing students' critical thinking and emphasize the need to position AI within meaningful pedagogical processes rather than treating generated answers as final knowledge. Sukmawati (2024), in the context of Qur'anic learning, likewise identifies AI's potential to improve learning efficiency while warning that excessive dependence may hinder human cognitive development. These studies indicate that the educational challenge is not simply whether AI improves efficiency but whether AI use strengthens or weakens learners' capacity for independent reasoning.

The issue of knowledge verification becomes particularly significant in Islamic education because religious learning involves texts, interpretations, traditions, and established scholarly methodologies. AI-generated answers may appear authoritative because of their fluent language and immediate responsiveness, but linguistic fluency does not guarantee epistemic validity.

Recent research on ChatGPT and Islamic epistemology suggests that generative AI is beginning to participate in the production and circulation of religious knowledge, thereby raising questions about how its outputs should be positioned within established Islamic epistemological traditions. Mustopa et al. (2026) examine this issue through the bayani, burhani, and irfani epistemological framework and argue for a reconstruction of religious authority appropriate to digital environments. This perspective is particularly relevant because it distinguishes information accessibility from religious authority.

The literature therefore points toward the necessity of human–AI collaboration rather than human–AI substitution. AI can perform computational, generative, and analytical functions, but teachers remain responsible for contextualizing knowledge, evaluating its educational significance, guiding interpretation, and cultivating character. Rohma (2025) argues that AI can support creative and interactive Islamic Religious Education when teachers deliberately integrate it into learning activities rather than allowing it to replace classroom interaction. Similarly, Achmad and Burhanuddin (2026) report that ChatGPT can contribute to interactive engagement, learning flexibility, and adaptive content in Islamic Religious Education, while emphasizing the need for ethical integration. The emerging literature thus supports a model in which AI functions as a pedagogical assistant, while teachers retain responsibility for educational judgment and human formation.

This human–AI relationship also changes the meaning of teacher professionalism. AI-supported education requires teachers to move beyond content transmission toward learning design, facilitation, critical evaluation, and mentoring. Teachers need to determine which tasks are appropriate for AI assistance and which require direct human interaction. They must also establish activities that require students to explain their reasoning, evaluate alternative answers, verify sources, and reflect on ethical implications. In this respect, AI may potentially increase rather than diminish the importance of teachers because the abundance of machine-generated information creates a greater need for human interpretation and pedagogical guidance. The literature on AI literacy similarly emphasizes that teachers require competencies that combine technical understanding with pedagogical and socio-ethical judgment (Chiu et al., 2024; Yim et al., 2024).

Another emerging theme is the relationship between AI and assessment and academic integrity. Generative AI challenges conventional assumptions about

authorship, originality, homework, take-home examinations, and written assignments. When students can generate essays, summaries, translations, or answers almost instantaneously, assessment practices that primarily measure product rather than process become increasingly vulnerable. Dabis and Csáki (2024), examining institutional responses to generative AI in higher education, identify academic integrity and institutional policy as central concerns in the governance of AI-supported learning. For Islamic education, this challenge also has a moral dimension because academic honesty is connected to values such as *amanah*, *sidq*, and responsibility. Consequently, assessment should increasingly emphasize reasoning, reflection, oral explanation, project development, source verification, and authentic application rather than relying exclusively on easily generated textual outputs.

The literature further indicates that AI-supported learning requires curriculum transformation rather than simply adding AI tools to existing teaching practices. Chiu et al. (2024) argue that AI education requires curriculum design that integrates knowledge, application, and meaningful pedagogical processes. Yim et al. (2024) similarly emphasize the need for interdisciplinary and transdisciplinary approaches because AI simultaneously involves technological, cognitive, social, ethical, and environmental dimensions. In Islamic education, curriculum transformation therefore needs to connect AI literacy with Islamic epistemology, ethics, critical thinking, character education, and responsible digital citizenship. The goal is not to transform Islamic education into a technical AI curriculum, but to prepare learners to encounter AI through an Islamic educational worldview.

A further issue identified in the literature is student agency and AI acceptance. The educational impact of AI depends partly on how learners perceive its usefulness, accessibility, reliability, and compatibility with their learning goals. Faizin et al. (2025), using an extended Technology Acceptance Model among Muslim students in Islamic Religious Education, demonstrate that students' acceptance of AI constitutes an important dimension of its educational implementation. This suggests that AI integration cannot be imposed solely through institutional policy or technological availability. Students' perceptions, prior experience, digital competence, and understanding of responsible AI use need to be considered when designing learning practices.

Taken together, the literature reveals three major theoretical orientations relevant to the future of Islamic education. The first is pedagogical augmentation,

in which AI enhances personalization, interaction, feedback, creativity, and learning efficiency. The second is critical AI literacy, in which students and teachers develop the ability to understand, evaluate, verify, and responsibly use AI-generated information. The third is human-centred educational governance, in which AI remains embedded within ethical, pedagogical, and institutional structures that protect human agency and educational integrity. These orientations indicate that AI should not be evaluated solely according to technological capability or efficiency but according to its contribution to meaningful, ethical, and formative education.

The existing literature nevertheless remains fragmented. Studies of AI in Islamic education frequently emphasize either pedagogical opportunities, ethical concerns, student acceptance, teacher competence, or religious epistemology as separate research problems. Systematic reviews have begun to map these areas, but there remains limited conceptual integration of how AI-supported pedagogy, AI literacy, Islamic epistemology, teacher agency, learner agency, assessment, and ethical governance can operate together within a single educational framework. The literature therefore provides substantial evidence of AI's potential but offers less clarity regarding how Islamic education can strategically reorganize its pedagogical practices while preserving its formative, ethical, and spiritual purposes.

Based on this literature, the present study conceptualizes the future of AI-supported Islamic education through an integrated relationship among AI-Enhanced Pedagogy, Critical AI Literacy, Islamic Ethical-Epistemological Guidance, Human Teacher Agency, and Responsible Learning Practices. AI provides technological capabilities; pedagogy determines how those capabilities are used; Islamic ethics and epistemology establish boundaries and principles; teachers provide interpretation and human mediation; and learners develop the capacity to use AI critically and responsibly. This synthesis provides a foundation for examining AI not as a replacement for Islamic education's human and spiritual dimensions, but as a catalyst for reimagining how those dimensions can be preserved and strengthened within an increasingly AI-mediated learning environment.

III. RESEARCH METHODOLOGY

This study employed a qualitative systematic literature review to examine the transformation of Islamic education through artificial intelligence (AI), focusing

on pedagogy, ethics, and learning practices. Relevant literature was searched across academic databases, including Scopus, Google Scholar, ERIC, ScienceDirect, and SpringerLink, using keywords such as artificial intelligence, generative AI, Islamic education, AI literacy, and Islamic ethics. The review primarily covered publications from 2020 to 2026.

Studies were selected based on their relevance to AI integration in education, pedagogical transformation, ethical considerations, teacher and student competencies, and Islamic educational values. Duplicate, irrelevant, and insufficiently scholarly publications were excluded. The selection process involved identification, screening, eligibility assessment, and inclusion, guided by PRISMA 2020 principles (Page et al., 2021). Data were extracted regarding each study's context, methodology, key findings, and implications. The literature was then analyzed through thematic synthesis, grouping findings into six themes: pedagogical transformation, AI literacy, Islamic ethical and epistemological guidance, teacher agency, learner agency and critical thinking, and responsible learning practices. Finally, conceptual synthesis was used to integrate these themes into a human-centred framework for ethically responsible AI integration in Islamic education.

IV. RESULTS AND DISCUSSION

RESULTS

The systematic literature synthesis reveals that artificial intelligence (AI) is increasingly influencing Islamic education across three interconnected domains: pedagogical transformation, ethical and epistemological reorientation, and the transformation of learning practices. Rather than presenting AI simply as a technological tool, the reviewed literature indicates that its integration is changing how knowledge is accessed, how teaching is designed, how students learn, and how educational authority and responsibility are negotiated. At the same time, the literature consistently emphasizes that the educational value of AI depends on human mediation, critical evaluation, and alignment with the fundamental purposes of Islamic education.

AI as a Driver of Pedagogical Transformation

The first major finding concerns the transformation of pedagogy. AI is increasingly being used to support personalized learning, instructional planning, content generation, automated feedback, language support, assessment, and

independent learning. Recent systematic reviews indicate that AI can shift Islamic education from predominantly teacher-directed knowledge transmission toward more adaptive and learner-centred forms of instruction. In this transformation, teachers increasingly function as facilitators, learning designers, evaluators, and mentors rather than merely as providers of information.

The literature also demonstrates that AI can increase students' opportunities to engage with learning materials beyond conventional classroom time. AI-supported systems can provide explanations, generate examples, respond to questions, and facilitate repeated practice according to individual learning needs. In Qur'anic education, for example, AI applications have been reported to support recitation, memorization, pronunciation, simplified explanations, and self-paced learning. However, specialized Qur'anic applications and general-purpose generative AI do not provide identical educational functions. Specialized tools may be more appropriate for recitation and memorization, whereas generative AI offers greater flexibility for explanation and instructional support but requires stronger teacher verification.

The findings therefore suggest that the pedagogical transformation associated with AI is not simply a movement from traditional teaching to technology-mediated teaching. Rather, it represents a shift toward human-AI collaboration, in which technological capabilities are combined with teacher judgement and pedagogical design. AI expands the range of instructional possibilities, but teachers remain responsible for determining learning objectives, selecting appropriate activities, interpreting student needs, and evaluating the educational validity of AI-generated materials.

Expansion of Learning Accessibility and Personalization

A second finding concerns the expansion of learning accessibility and personalization. Across the literature, AI is associated with increased opportunities for students to obtain explanations, practice independently, explore additional learning resources, and receive immediate responses. Such capabilities are particularly relevant to differentiated learning because students can interact with learning materials according to their individual pace and level of understanding. Recent research on ChatGPT in Islamic Religious Education similarly reports potential contributions to simplifying learning materials, expanding access to information, supporting differentiated learning, and encouraging student discussion and argumentation. At the same time, the same

literature identifies accuracy, hallucination, source validity, academic integrity, and student dependency as significant implementation challenges.

The synthesis consequently identifies a central tension between accessibility and reliability. AI can make information more accessible, but greater accessibility does not automatically guarantee greater educational quality. In Islamic education, this distinction is particularly important because students may encounter explanations of Qur'anic verses, Hadith, jurisprudence, theology, or Islamic history through systems that generate plausible but inaccurate responses. Therefore, personalization must be accompanied by verification and teacher guidance.

AI Literacy as a Core Educational Competency

The third finding concerns the emergence of AI literacy as a necessary component of contemporary Islamic education. The literature indicates that effective AI use requires competencies that extend beyond knowing how to operate an AI application. Students and teachers need to understand how AI produces responses, recognize its limitations, identify potential bias, assess the reliability of information, formulate appropriate prompts, and verify outputs against authoritative sources.

This finding changes the conceptualization of digital competence in Islamic education. AI literacy is not merely a technical skill but also involves critical, ethical, epistemological, and reflective competencies. Students must be able to distinguish between an AI-generated response and verified knowledge, while teachers need the ability to evaluate whether AI-generated materials are pedagogically and religiously appropriate.

Recent systematic reviews emphasize that teacher readiness and student AI literacy are among the factors influencing successful implementation. The literature also indicates that authentic learning design and institutional validation mechanisms are necessary to prevent AI from becoming a substitute for students' intellectual engagement.

Reconfiguration of Knowledge Authority

A particularly significant finding for Islamic education is the emergence of a knowledge-authority problem. Conventional Islamic education places substantial importance on teachers, scholars, texts, and established traditions of knowledge transmission. Generative AI introduces a new source of apparently

authoritative information because students can obtain immediate answers without directly consulting teachers or primary sources. The literature identifies this development as a potential transformation in the relationship between learners, teachers, and knowledge. Recent studies highlight concerns about the shifting authority of knowledge from teachers toward technological systems, particularly when students accept AI-generated responses without verification.

The findings do not suggest that AI necessarily replaces religious authority. Rather, they indicate that AI creates a new epistemological layer within Islamic education. AI can retrieve, summarize, reorganize, and generate explanations, but the validity of religious knowledge still requires human scholarly judgement and reference to reliable sources. This distinction is particularly important because generative AI systems generate responses probabilistically and may produce inaccurate or contextually inappropriate information. Consequently, the literature increasingly emphasizes source verification and human mediation as fundamental principles for AI-supported Islamic learning. A recent systematic review specifically concludes that ethical integration of generative AI in Islamic Religious Education requires human mediation and verification of sources.

Ethical Reorientation of Islamic Education

The fifth finding concerns the ethical dimension of AI integration. The literature identifies several recurring ethical challenges, including misinformation, hallucination, plagiarism, academic dishonesty, privacy concerns, algorithmic bias, excessive technological dependence, unequal access, and the weakening of teacher authority. These challenges demonstrate that AI integration cannot be evaluated exclusively according to efficiency or technological functionality. Recent scholarship identifies specific ethical concerns such as algorithmic opacity, bias, data privacy, diminished teacher authority, commodification of knowledge, and unequal access. In response, Islamic ethical principles have been proposed around transparency, justice, responsibility, privacy, human autonomy, and social solidarity.

Within the context of Islamic education, these concerns can be connected with broader concepts of *adab*, *amanah*, responsibility, justice, and *maqāṣid al-sharīʿah*. The findings indicate that Islamic ethics can provide more than a general moral justification for technology; it can function as a framework for evaluating how AI should be used, what types of information should be trusted, how learners should interact with technology, and where human responsibility must remain

central. Recent research specifically addressing the ethics of ChatGPT in Islamic education also highlights plagiarism, technological dependence, weak source verification, declining seriousness in learning, and changes in scholarly authority. It proposes the reactivation of intellectual *adab* as a framework for responsible engagement with generative AI.

Transformation of Teacher Roles

The synthesis further reveals a significant transformation in the role of teachers. AI reduces the exclusivity of teachers as providers of readily accessible information because students can independently obtain explanations and generate learning materials. However, the literature does not indicate that this makes teachers less important. Instead, their responsibilities become more complex. Teachers increasingly function as pedagogical designers, knowledge validators, ethical mentors, learning facilitators, and critical supervisors. They must determine when AI is pedagogically appropriate, evaluate AI-generated content, guide students in verifying sources, and help learners distinguish between information and reliable knowledge.

This finding is particularly evident in recent research on Qur'anic education. Teachers recognize the benefits of AI for learning support but simultaneously express concerns about inaccurate religious content, learner dependency, and the possible erosion of the spiritual and relational dimensions of Qur'anic learning. Thus, the future role of the Islamic education teacher is not diminished by AI but reconfigured. Teacher professionalism increasingly involves technological competence alongside pedagogical judgement, ethical reasoning, and the capacity to guide students in responsible knowledge practices.

Transformation of Student Learning Practices

AI also changes how students engage with learning. The literature identifies opportunities for greater autonomy, self-paced learning, exploration, feedback, and discussion. Students can use AI to generate questions, compare explanations, receive feedback, and explore alternative perspectives. However, the findings reveal a corresponding risk of cognitive and technological dependency. When students use AI primarily to produce answers, complete assignments, or summarize materials without engaging in independent reasoning, AI may undermine rather than strengthen learning. The educational issue is therefore not whether students use AI, but how they use it.

Evidence from experimental research in Islamic Religious Education indicates that ChatGPT-supported learning can be associated with the development of critical thinking and moral reasoning when AI is incorporated into an appropriately designed learning model rather than used simply as an answer-generating mechanism. This finding supports a shift from AI-assisted answer production toward AI-assisted inquiry. Learning activities should require students to question AI responses, compare them with authoritative sources, identify weaknesses, construct arguments, and formulate their own conclusions.

Assessment and Academic Integrity

Another important result concerns assessment. Generative AI challenges conventional assumptions about authorship and student performance because students can use AI to generate essays, summaries, answers, presentations, and other academic products. Consequently, traditional assessment formats that primarily evaluate the final product may become less effective in distinguishing students' own understanding from AI-generated content. The literature identifies plagiarism, academic dishonesty, and excessive dependence as recurring challenges in AI-supported Islamic education. The synthesis indicates that assessment practices therefore need to emphasize process, reasoning, reflection, application, and oral or interactive demonstration of understanding. Rather than simply attempting to prohibit AI, educators may need to redesign assessment so that students are required to document how they use AI, verify its outputs, justify their decisions, and demonstrate their own intellectual contribution.

Institutional and Curriculum Readiness

The literature also identifies institutional readiness as a decisive condition for sustainable AI integration. AI adoption cannot depend solely on individual teachers or students. Institutions need policies concerning acceptable AI use, academic integrity, privacy, data protection, source verification, assessment, and teacher professional development. Recent systematic research indicates that current AI research in Islamic Religious Education is concentrated primarily in higher education, while madrasah, pesantren, and early childhood Islamic education remain comparatively underrepresented. This finding suggests that the current evidence base does not yet fully represent the diversity of Islamic educational environments.

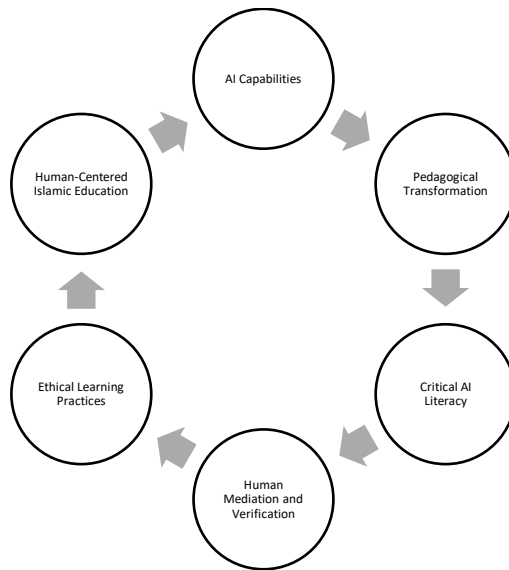
The results therefore indicate a need for curriculum and institutional frameworks that integrate AI literacy with Islamic educational objectives. AI should not be introduced as an isolated technological subject but embedded within

learning activities that develop critical thinking, ethical reasoning, information verification, character, and responsible digital participation. The synthesis of the reviewed literature produces an integrated model in which AI transformation is understood through five interconnected dimensions:

Dimension	Core finding	Educational orientation
AI-enhanced pedagogy	AI supports personalization, instructional design, feedback, and independent learning.	Use AI to enrich rather than replace pedagogy.
Critical AI literacy	Users need to understand, evaluate, verify, and critically interrogate AI outputs.	Develop critical and reflective AI competencies.
Islamic ethical-epistemological guidance	AI raises questions of authenticity, authority, responsibility, privacy, and moral conduct.	Ground AI use in Islamic ethical and knowledge principles.
Human agency	Teachers and students remain responsible for interpretation, judgement, and learning.	Preserve teacher mediation and learner autonomy.
Institutional governance	Sustainable integration requires policy, assessment reform, professional development, and safeguards.	Establish responsible and context-sensitive AI governance.

These dimensions form a mutually dependent system rather than separate components. AI-enhanced pedagogy provides technological possibilities; AI literacy enables critical engagement; Islamic ethical and epistemological principles establish normative boundaries; teachers and learners provide human judgement and agency; and institutional governance creates the conditions for responsible implementation.

The resulting conceptual pathway can be expressed as:



The synthesis therefore positions AI neither as an autonomous educational authority nor merely as a neutral technological instrument. Its educational significance emerges from the interaction between technological capability and human, pedagogical, ethical, and institutional conditions.

DISCUSSION

The findings demonstrate that artificial intelligence (AI) is transforming Islamic education through three interconnected dimensions: pedagogical innovation, ethical and epistemological reconsideration, and changing learning practices. The literature suggests that AI should not be understood merely as a technological instrument but as a technology that reshapes relationships among teachers, learners, knowledge, and educational institutions (Albar et al., 2026; Arifudin & Akil, 2025; Taha et al., 2025). This interpretation is consistent with broader AI-in-education research, which emphasizes that effective AI integration requires technological competence alongside critical, ethical, and reflective capabilities (Chiu et al., 2024; Lindberg, 2024; Yim et al., 2024).

The findings indicate that AI can support personalized learning, instructional design, content generation, feedback, and independent learning. These opportunities are consistent with research identifying adaptive learning and

intelligent assistance as important educational applications of AI (Lindberg, 2024; Yim et al., 2024). In Islamic education, ChatGPT and other AI applications can function as learning assistants that facilitate access to explanations, learning resources, and interactive activities (Suhendi et al., 2024; Ariibah & Asyari, 2026). However, AI-supported pedagogy should not be equated with the replacement of teachers. Recent studies emphasize that AI is more appropriately positioned as a supporting resource whose educational value depends on teacher mediation and pedagogical design (Arifudin & Akil, 2025; Albar et al., 2026). Research on Qur'anic education similarly shows that AI can support recitation, memorization, explanation, and learner autonomy, while concerns remain regarding accuracy, authenticity, dependence, and the relational and spiritual dimensions of learning (2026). Thus, AI can expand pedagogical possibilities, but teachers remain responsible for determining educational objectives, contextualizing knowledge, and evaluating AI-generated content.

The findings further demonstrate that AI literacy is becoming a fundamental competency for both teachers and students. AI literacy extends beyond technical ability and includes knowledge, critical evaluation, ethical awareness, collaboration, and self-reflection (Chiu et al., 2024). Yim et al. (2024) similarly argue that AI literacy intersects with digital literacy, data literacy, computational thinking, and AI ethics, while Lindberg (2024) emphasizes the importance of understanding both the technological and socio-ethical dimensions of AI. These findings have particular significance for Islamic education because teachers must evaluate not only whether AI-generated content is educationally useful but also whether it is consistent with reliable Islamic sources and educational values. Consequently, teacher competence should integrate AI literacy, pedagogical competence, Islamic content knowledge, and ethical judgement. Recent research on AI and teacher training similarly emphasizes humanistic pedagogy and *maqāṣid al-sharī'ah* as important foundations for responsible AI integration (Dewi et al., 2026).

A particularly important finding is the potential transformation of knowledge authority. Generative AI can provide immediate and apparently authoritative answers, potentially changing students' relationships with teachers and traditional sources of knowledge. Recent research explicitly identifies the possibility of a shift in knowledge authority from teachers toward algorithmic systems and warns that excessive dependence may weaken intellectual

independence and critical thinking (Azkiya' et al., 2026). This issue is particularly significant in Islamic education because religious knowledge requires attention to textual authenticity, context, interpretation, and scholarly authority. Recent research on AI in Qur'anic education reports concerns regarding the accuracy and authenticity of AI-generated religious content and therefore emphasizes the need for teacher verification (2026). Similarly, studies examining ChatGPT through Islamic ethical perspectives stress *tabayyun*, source verification, and the continuing role of educators as knowledge guides (Taha et al., 2025; Rahman & Ghifari, 2025).

The ethical dimension represents another central finding. The literature identifies misinformation, hallucination, plagiarism, privacy, algorithmic bias, academic integrity, technological dependency, and unequal access as major concerns associated with AI in education (Chiu et al., 2024; Yim et al., 2024). Within Islamic education, these concerns are connected to broader principles of *adab*, *amanah*, justice, responsibility, and *maqāṣid al-sharī'ah* (Supriatin et al., 2025; Qona'ah & Sarkar, 2026). Recent Islamic scholarship proposes that *maqāṣid al-sharī'ah* can provide an ethical framework for evaluating AI use, particularly through the protection of religion, intellect, dignity, and human welfare (Dewi et al., 2026; Supriatin et al., 2025). Rahman and Ghifari (2025) similarly argue that AI can improve educational efficiency but should remain governed by trust, justice, and ethical responsibility. These perspectives suggest that Islamic ethics should not merely restrict AI adoption. Rather, it can function as a normative framework for responsible technological use. The central question therefore shifts from whether AI can perform an educational task to whether its use supports the intellectual, moral, and spiritual purposes of Islamic education.

The findings also reveal a tension between learner autonomy and technological dependence. AI can support self-paced learning, exploration, feedback, and independent inquiry (Ariabah & Asyari, 2026; Suhendi et al., 2024). However, excessive reliance on AI may reduce students' intellectual effort and encourage the use of technology as an answer-generating mechanism rather than a learning resource (Azkiya' et al., 2026). Evidence from Islamic Religious Education also suggests that appropriately designed ChatGPT-based learning can contribute to students' critical thinking and moral reasoning (Salim & Habibi, 2025). This indicates that the educational impact of AI depends substantially on how learning activities are designed. AI should therefore be incorporated into tasks requiring questioning, comparison, reflection, argumentation, and

verification rather than simply answer production. The implication is a shift from AI-assisted answering to AI-assisted inquiry. Students should be expected to examine AI responses, compare them with authoritative sources, identify inaccuracies, and construct their own conclusions. Such practices preserve learner agency while using AI to expand learning opportunities.

Generative AI also requires reconsideration of assessment. Its ability to generate essays, summaries, answers, and other academic products challenges conventional product-oriented assessment and raises concerns about plagiarism and academic integrity (Taha et al., 2025; Azkiya' et al., 2026). Consequently, Islamic education needs assessment strategies that emphasize reasoning, reflection, application, and learning processes. Oral examinations, portfolios, reflective journals, source-analysis activities, project-based learning, and classroom discussions can provide stronger evidence of students' understanding. The purpose should not simply be to prevent AI use but to ensure that students remain responsible for the intellectual process underlying their work.

The findings further suggest that responsible AI integration requires institutional support. Individual teacher competence is insufficient when institutions lack clear policies concerning AI use, academic integrity, privacy, assessment, and professional development (Arifudin & Akil, 2025; Albar et al., 2026). AI literacy should therefore become part of broader curriculum development rather than remain an isolated technological skill. The curriculum should integrate technical understanding with critical thinking, ethical reasoning, source verification, and responsible digital behaviour. This approach corresponds with broader AI literacy frameworks that emphasize technological, ethical, collaborative, and reflective dimensions rather than technical skills alone (Chiu et al., 2024; Lindberg, 2024; Yim et al., 2024).

Taken together, the findings support a human-centred model of AI integration in Islamic education. The model connects five elements: AI-enhanced pedagogy, critical AI literacy, Islamic ethical-epistemological guidance, human agency, and institutional governance. AI-enhanced pedagogy provides new instructional possibilities; AI literacy enables critical engagement; Islamic ethics establishes normative boundaries; teachers and learners maintain human judgement and responsibility; and institutional governance provides the conditions for sustainable implementation. This synthesis extends previous

discussions by integrating technological, pedagogical, and ethical dimensions within a single framework. Recent scholarship similarly emphasizes that AI integration in Islamic education requires simultaneous attention to pedagogy, teacher competence, source verification, ethics, and governance (Albar et al., 2026; Qona'ah & Sarkar, 2026; Dewi et al., 2026). Thus, the future of Islamic education should not be conceptualized as AI replacing teachers, but as a reconfiguration of educational practices in which AI functions as a supporting technology under human and ethical guidance. The educational value of AI ultimately depends on whether it strengthens meaningful learning, critical reasoning, ethical responsibility, and human development while preserving the intellectual, moral, and spiritual foundations of Islamic education.

V. CONCLUSION AND RECOMMENDATION

Artificial intelligence is reshaping the future of Islamic education by creating new possibilities for personalized learning, instructional support, knowledge access, assessment, and independent learning. However, this transformation should not be understood simply as the adoption of new technologies. The findings indicate that meaningful AI integration requires simultaneous attention to pedagogical transformation, AI literacy, ethical responsibility, epistemological integrity, teacher agency, and responsible learning practices. Recent evidence similarly confirms that AI is most appropriately positioned as a pedagogical support rather than a replacement for teachers or religious authorities.

The study concludes that the central challenge for Islamic education is not whether AI should be used, but how AI can be integrated without weakening the intellectual, moral, spiritual, and human dimensions of education. AI can enhance learning efficiency and accessibility, but its outputs cannot automatically be treated as authoritative knowledge, particularly when dealing with Qur'anic interpretation, Hadith, fiqh, theology, and other religious matters. Human verification, reliable sources, and teacher mediation therefore remain essential. This is consistent with recent research identifying source authenticity, religious accuracy, technological dependency, and epistemic authority as critical concerns in AI-supported Islamic education.

The study further proposes a human-centred approach to AI-supported Islamic education, in which AI-enhanced pedagogy is integrated with critical AI literacy, Islamic ethical and epistemological guidance, human agency, and institutional governance. Within this approach, teachers are not displaced but assume increasingly important roles as pedagogical designers, knowledge validators, ethical mentors, and facilitators of critical learning. Students, meanwhile, should be encouraged to use AI as a resource for inquiry, reflection, comparison, and learning rather than as a substitute for their own reasoning. Recent systematic reviews likewise emphasize the need to balance technological innovation with Islamic values, educator readiness, curriculum development, and ethical governance.

Ultimately, the future of Islamic education in the age of AI depends on maintaining a productive relationship between technological innovation and human educational purpose. AI should expand the capacity of teachers and learners while remaining subject to ethical principles, scholarly verification, and institutional responsibility. Future research should move beyond conceptual discussions toward classroom-based empirical studies, longitudinal investigations, comparative evaluations of AI-supported learning models, and the development of validated frameworks for measuring AI literacy, ethical competence, learning outcomes, and religious knowledge integrity. Such research is necessary to ensure that AI contributes not only to more efficient learning, but also to the formation of knowledgeable, critical, ethical, and spiritually grounded learners.

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