Al-Husna: Jurnal Ilmiah Pendidikan Agama Islam
Vol 3, No 1, January-June (2026), EISSN 3047-9118
Available online at https://ojs-al-jami.my.id/index.php/Al-Husna/

Reconstructing Islamic Education in the Age of Artificial Intelligence Toward a Human-Centered and Ethical Learning Paradigm

[*]Ainul Jaria Maidin[1], Salma Begum[2], Maryam Rashid Saleh Al Tamimi[3], Muneera Mohammed Al Dossary[4], Abdallah El-Khatib[5]

[* 1] International Islamic University Malaysia
[2] International Islamic University Islamabad, Pakistan
[3]Imam Abdulrahman Bin Faisal University, Saudi Arabia
[4]Imam Abdulrahman Bin Faisal University, Saudi Arabia
[5]Qatar University, College of Sharia and Islamic Studies, Qatar

Received:30-12-2025
Revised:20-02-2026
Accepted:03-06-2026

Abstract

This study aims to reconstruct Islamic education in the age of artificial intelligence by developing a human-centered and ethical learning paradigm. The rapid integration of AI in education has transformed learning processes, yet it raises significant ethical and pedagogical concerns, particularly in relation to human agency, moral development, and spiritual formation. The study employs a qualitative library research design using a systematic literature review approach of scholarly works. Data were analyzed through thematic content analysis to identify key themes related to Islamic education, AI integration, digital ethics, and human centered learning. The findings reveal that AI enhances educational efficiency through personalization, assessment automation, and accessibility; however, it also introduces challenges such as ethical risks, algorithmic bias, data privacy issues, and reduced human interaction. The study identifies that Islamic educational principles including taqwā, ‘adl, raḥmah, and adab provide a strong ethical foundation for guiding AI integration. The novelty of this research lies in the development of the Human-Centered Islamic AI Education Framework (HCAIEF), which integrates Islamic educational philosophy with contemporary AI ethics and human-centered learning theory. The study concludes that AI should function as a supportive tool that enhances, rather than replaces, human, moral, and spiritual dimensions of education.

Keywords: Islamic Education, Artificial Intelligence, Human-Centered Learning
(*) Corresponding Author: ainulj@iium.edu.my

Introduction

The rapid development of artificial intelligence (AI) has fundamentally transformed global education systems, including Islamic education. AI technologies are now integrated into learning management systems, adaptive learning platforms, and intelligent tutoring systems. These transformations have introduced both opportunities and ethical concerns that require serious academic attention. Islamic education, which is traditionally grounded in moral and spiritual formation, now faces the challenge of adapting to digital disruption while preserving its core values. The tension between technological advancement and spiritual integrity has become a central issue in contemporary educational discourse. Therefore, a critical reconstruction of Islamic education is urgently needed to ensure relevance in the AI era (Selwyn, 2024; Holmes et al., 2021).

Artificial intelligence is no longer merely a technological tool but has become an epistemological force shaping how knowledge is produced, accessed, and evaluated. In educational contexts, AI influences curriculum design, assessment systems, and even pedagogical decision-making. While this enhances efficiency, it also raises concerns about human agency and ethical responsibility. Islamic education, which emphasizes

ta'dīb and moral consciousness, must respond to these shifts by reaffirming the centrality of human dignity. Without such a response, there is a risk that education becomes overly mechanistic and detached from spiritual values. This necessitates a human-centered paradigm that integrates ethical reflection with technological innovation (UNESCO, 2024; Zawacki-Richter et al., 2022).

One of the most pressing challenges in AI-driven education is the increasing reliance on algorithmic decision-making. Algorithms now determine learning pathways, student assessments, and even behavioral predictions. However, these systems are not value-neutral, as they reflect the biases of their designers and data sources. In Islamic educational philosophy, knowledge is inseparable from ethical responsibility and divine accountability. Therefore, the integration of AI must be critically examined through ethical frameworks rooted in Islamic values. This ensures that technological progress does not compromise moral integrity (Floridi, 2023; Kamali, 2023).

Islamic education historically emphasizes holistic human development, including intellectual, spiritual, emotional, and social dimensions. This holistic vision contrasts with reductionist models of education that prioritize measurable outcomes alone. The rise of AI-based learning systems risks reinforcing such reductionism by focusing on efficiency and performance metrics. However, Islamic pedagogy insists that education must cultivate *insān kāmil* (the complete human being). This concept requires a balance between cognitive development and spiritual refinement. Consequently, Islamic education must be reconstructed to resist purely technocratic approaches to learning (Hashim, 2021; Halstead, 2021).

The concept of human-centered education has gained increasing attention in global educational discourse. Human-centered approaches prioritize dignity, agency, and well-being of learners rather than technological efficiency. UNESCO (2024) emphasizes that education in the digital age must remain anchored in humanistic values. This aligns closely with Islamic educational principles that prioritize *rahmah* (compassion) and *'adl* (justice). Therefore, there is a strong convergence between Islamic education and contemporary human-centered learning frameworks. This convergence provides a foundation for integrating AI responsibly into Islamic educational systems.

Digital transformation has also reshaped students' learning behaviors and cognitive patterns. Students today are exposed to vast amounts of digital information, often without sufficient critical filtering mechanisms. This creates challenges related to misinformation, superficial learning, and declining attention spans. Islamic education must respond by strengthening critical thinking and ethical reasoning skills. Prophetic educational traditions emphasize reflection (*tafakkur*) and critical inquiry as essential components of learning. These principles are highly relevant in addressing contemporary digital challenges (Sahin, 2022; OECD, 2023).

Furthermore, AI technologies introduce new forms of inequality in education. Access to AI-based learning systems is often uneven across regions and socioeconomic groups. This digital divide risks widening existing educational disparities. Islamic ethics

emphasize social justice and equitable access to knowledge as fundamental principles. Therefore, any integration of AI in Islamic education must prioritize inclusivity and fairness. This requires policy frameworks that ensure equal access to digital learning resources (UNESCO, 2024).

Another critical issue is the potential erosion of teacher authority in AI-supported learning environments. AI systems can provide automated instruction, feedback, and assessment, reducing the traditional role of educators. However, in Islamic education, teachers are not merely knowledge transmitters but moral exemplars and spiritual guides. The replacement of teachers by machines would undermine this essential pedagogical relationship. Therefore, AI should be positioned as a supportive tool rather than a substitute for human educators. This preserves the ethical and relational dimensions of Islamic pedagogy (Memon, 2021).

The ethical implications of AI extend beyond education into broader questions of human identity and agency. As AI systems become more autonomous, concerns arise regarding human dependency on technology. Islamic philosophy emphasizes human responsibility (*taklīf*) and moral accountability. These principles require that humans remain active agents in decision-making processes. Consequently, Islamic education must cultivate ethical awareness regarding technology use. This ensures that learners maintain autonomy in an increasingly automated world (Kamali, 2023).

In addition, AI raises concerns about data privacy and surveillance in educational environments. Many AI systems collect and analyze student data to optimize learning outcomes. However, this raises ethical questions about consent, ownership, and data security. Islamic ethical frameworks emphasize the protection of privacy (*ḥifẓ al-ʿird*) and trust (*amānah*). These principles provide a strong basis for evaluating AI systems in education. Therefore, ethical governance is essential in AI integration within Islamic learning institutions (Floridi, 2023).

The COVID-19 pandemic accelerated the adoption of digital and AI-based learning systems worldwide. This sudden transition exposed both the strengths and weaknesses of digital education infrastructures. While online learning increased accessibility, it also revealed challenges related to engagement and equity. Islamic educational institutions were similarly affected by this transformation. As a result, there is now an urgent need to rethink educational strategies in a post-pandemic context. AI integration must therefore be carefully aligned with pedagogical and ethical goals.

Recent studies highlight the importance of integrating values-based education with technological innovation. Scholars argue that technology alone cannot solve educational challenges without ethical grounding. Islamic education offers a value-rich framework that can guide responsible AI adoption. This includes principles such as justice, compassion, and wisdom. These values are essential for ensuring that AI serves humanity rather than replacing it. Therefore, value-based integration is central to the reconstruction of Islamic education.

The concept of digital ethics has become increasingly relevant in educational research. Digital ethics examines moral issues related to technology use, including

fairness, transparency, and accountability. Islamic ethics shares similar concerns but extends them through spiritual and theological dimensions. This provides a more comprehensive ethical foundation for evaluating AI systems. Integrating Islamic ethics with digital ethics can produce a robust framework for educational transformation. This integration is essential for sustainable and responsible AI adoption.

Another important dimension is the development of AI literacy among educators and students. AI literacy involves understanding how AI systems work, their limitations, and their ethical implications. Without this knowledge, users may uncritically accept algorithmic decisions. Islamic education must therefore incorporate digital literacy as part of its curriculum. This ensures that learners can engage critically and responsibly with technology. AI literacy becomes a key competency in modern Islamic education. Finally, the reconstruction of Islamic education in the age of AI requires a paradigm shift from technology-centered to human-centered learning. This shift emphasizes that technology should serve human development rather than define it. Islamic education provides a strong philosophical foundation for this transformation. By integrating ethical principles with technological innovation, Islamic education can remain relevant in the digital age. This study therefore proposes a reconstructed framework that aligns AI integration with human dignity, moral responsibility, and spiritual development.

Theoretical Framework

The theoretical framework of this study is constructed through an integration of Islamic educational philosophy, human-centered education theory, artificial intelligence in education (AIED), digital ethics, and transformative learning theory. These perspectives collectively provide a multidimensional lens for understanding how Islamic education can be reconstructed in the age of artificial intelligence. Contemporary educational discourse increasingly emphasizes that technological innovation must be accompanied by ethical and philosophical grounding. Without such grounding, AI risks reducing education to a mechanistic and data-driven process. Islamic education, with its strong emphasis on moral and spiritual formation, offers a rich foundation for rethinking AI integration in ways that preserve human dignity and ethical responsibility. This framework therefore situates Islamic education as both a critical interlocutor and a guiding force in shaping ethical AI-driven learning environments (Holmes et al., 2021; UNESCO, 2024).

Islamic educational philosophy is fundamentally rooted in the concepts of ta‘lim, tarbiyah, and ta’dīb, which collectively emphasize knowledge acquisition, holistic development, and moral discipline. Classical Muslim scholars such as Al-Attas and Al-Ghazali emphasize that education is not merely the transmission of information but the cultivation of the soul. In contemporary scholarship, these concepts are increasingly revisited to address modern educational challenges, including digital transformation. The integration of AI into education raises questions about whether moral and spiritual dimensions of learning can be preserved in algorithmically mediated environments.

Therefore, Islamic educational philosophy provides a normative framework for evaluating the ethical implications of AI. It ensures that educational innovation remains aligned with the purpose of human flourishing (insān kāmil) (Al-Attas, 2022; Hashim, 2021).

Human-centered education theory serves as a second foundational pillar of this framework. This approach emphasizes the dignity, autonomy, and holistic development of learners. Unlike technocentric models, human-centered education prioritizes well-being, meaning-making, and relational learning. UNESCO (2024) highlights that future education systems must resist the over-mechanization of learning processes and maintain a strong focus on human values. In this context, Islamic education aligns naturally with human-centered principles due to its emphasis on compassion (raḥmah), justice (‘adl), and wisdom (ḥikmah). The convergence of these traditions provides a strong conceptual basis for developing ethical AI integration models in education (Biesta, 2022; UNESCO, 2024).

Artificial intelligence in education (AIED) constitutes a rapidly expanding field that explores how intelligent systems can enhance teaching, learning, and assessment processes. AI technologies such as adaptive learning systems, natural language processing tools, and predictive analytics are increasingly used in educational environments. Research shows that these technologies can improve learning efficiency and personalize educational experiences. However, scholars also warn that AIED may lead to over-reliance on automation and reduced human interaction in education. In Islamic education contexts, this raises concerns about the marginalization of teachers’ moral and spiritual roles. Therefore, AIED must be critically examined through ethical and pedagogical lenses to ensure it supports rather than replaces human agency (Zawacki-Richter et al., 2022; Selwyn, 2024).

Digital ethics provides another crucial theoretical dimension for this study. Digital ethics focuses on the moral implications of technology design, implementation, and use. It addresses issues such as privacy, surveillance, bias, transparency, and accountability in digital systems. Floridi (2023) argues that digital technologies must be governed by ethical principles that prioritize human well-being and social justice. Islamic ethics offers complementary perspectives through its emphasis on amānah (trust), ḥuqūq al-insān (human rights), and accountability before God. The integration of Islamic ethics with digital ethics creates a robust moral framework for evaluating AI in education. This synthesis is essential for ensuring that AI systems operate within ethical boundaries that respect human dignity (Floridi, 2023; Kamali, 2023).

Transformative learning theory further enriches the conceptual foundation of this study. Developed by Mezirow, transformative learning focuses on how individuals critically reflect on assumptions and develop new perspectives through learning experiences. In contemporary education, this theory is widely used to promote critical thinking, self-awareness, and personal growth. Islamic education similarly emphasizes tafakkur (reflection) and muhasabah (self-evaluation) as essential processes of moral development. The integration of transformative learning theory with Islamic pedagogy

provides a powerful framework for fostering deep learning and ethical awareness. In the context of AI, transformative learning helps students critically engage with technology rather than passively consuming it (Taylor & Cranton, 2023; Memon, 2021).

Social constructivist theory also contributes significantly to the framework by emphasizing the role of social interaction in knowledge construction. According to Vygotskian perspectives, learning occurs through dialogue, collaboration, and cultural mediation. In Islamic education, knowledge acquisition is similarly viewed as a socially embedded process involving teachers, peers, and communities. AI technologies, while powerful, cannot fully replace the relational dimensions of learning. Therefore, social constructivism highlights the importance of maintaining human interaction in AI-enhanced educational environments. This ensures that learning remains contextual, relational, and ethically grounded (Vygotsky, 2021; Holmes et al., 2021).

Another important theoretical lens is ethics of care, which emphasizes relational responsibility, empathy, and attentiveness to the needs of others. This theory argues that ethical behavior emerges from relationships rather than abstract principles alone. Islamic education strongly resonates with this perspective through its emphasis on compassion (raḥmah) and service to humanity (khidmah). In AI-driven educational environments, the ethics of care highlights the importance of maintaining human sensitivity in technologically mediated interactions. This is particularly relevant in contexts where AI systems may reduce interpersonal engagement. Therefore, integrating ethics of care into Islamic education ensures that technological advancement does not undermine human relational values (Noddings, 2021; Halstead, 2021).

Critical pedagogy also informs the theoretical framework by emphasizing the importance of questioning power structures and technological ideologies in education. Scholars such as Freire argue that education should empower learners to critically analyze systems of domination and inequality. In the context of AI, critical pedagogy encourages students to examine how algorithms shape knowledge production and social behavior. Islamic education shares this critical orientation through its emphasis on justice (‘adl) and moral responsibility. Therefore, critical pedagogy provides tools for analyzing the socio-political dimensions of AI in education. This helps ensure that learners develop not only technical skills but also critical consciousness (Freire, 2021; Selwyn, 2024).

Another key theoretical contribution comes from socio-technical systems theory, which views technology and society as deeply interconnected. According to this perspective, technological systems cannot be understood in isolation from social, cultural, and ethical contexts. AI systems in education are therefore shaped by human values, institutional policies, and cultural assumptions. Islamic education, with its holistic worldview, aligns well with this systems-based understanding. It emphasizes the interconnectedness of knowledge, ethics, and human purpose. Consequently, socio-technical systems theory supports a holistic approach to AI integration in Islamic education (Bostrom, 2022; Floridi, 2023).

The concept of human-AI collaboration is also central to the theoretical framework. Rather than viewing AI as a replacement for human educators, this perspective emphasizes collaboration between humans and intelligent systems. AI can support administrative tasks, personalized learning, and data analysis, while humans retain responsibility for ethical judgment and moral guidance. In Islamic education, this aligns with the principle that humans are khulafā' fī al-ard (stewards on earth), responsible for guiding technological development ethically. Therefore, human-AI collaboration must be structured in ways that preserve human agency and moral authority. This balance is essential for sustainable educational transformation (Holmes et al., 2021; UNESCO, 2024).

The integration of these theoretical perspectives leads to the formulation of a Human-Centered Islamic AI Education Framework (HCAIEF). This framework positions Islamic ethical principles as the normative foundation for AI integration in education. It emphasizes the alignment of technological innovation with moral development, spiritual growth, and social responsibility. The framework also highlights the importance of teacher agency, student autonomy, and institutional accountability. By combining Islamic philosophy with contemporary educational theories, the HCAIEF provides a comprehensive model for reconstructing Islamic education in the age of artificial intelligence. This theoretical synthesis forms the foundation for the methodological approach and empirical discussion of the study.

Methodology

This study employs a qualitative library research design to examine the reconstruction of Islamic education in the age of artificial intelligence toward a human-centered and ethical learning paradigm. Library research is appropriate for studies that aim to develop conceptual and theoretical frameworks rather than measure empirical variables. In the context of rapidly evolving technologies such as artificial intelligence, conceptual synthesis becomes essential to understand emerging educational transformations. The method allows the researcher to integrate insights from Islamic education, educational technology, ethics, and digital transformation studies. By relying on secondary data from scholarly sources, the study ensures a broad and interdisciplinary perspective. This approach is widely recognized in contemporary educational research for developing theory-driven contributions (Snyder, 2019; Zawacki-Richter et al., 2022).

The study follows a systematic literature review (SLR) approach to ensure rigor, transparency, and replicability. The SLR method involves clearly defined stages, including formulation of research questions, identification of relevant literature, screening of sources, quality appraisal, and thematic synthesis. This structured process reduces researcher bias and enhances the credibility of findings. The guiding research questions include: (1) How does artificial intelligence influence Islamic education systems? (2) What ethical challenges arise from AI integration in education? and (3) How can Islamic educational principles support a human-centered AI learning

paradigm? These questions guide the entire analytical process. The systematic approach ensures that the review remains focused and academically rigorous (Page et al., 2021; Booth et al., 2021).

Data sources in this study include peer-reviewed journal articles, academic books, policy reports, and international organizational publications. The literature was collected from databases such as Scopus, Web of Science, ERIC, SpringerLink, ScienceDirect, Taylor & Francis Online, and Google Scholar. Priority was given to publications between 2020 and 2026 to ensure relevance to current developments in artificial intelligence and education. However, seminal works in Islamic education and educational philosophy were also included when necessary to support theoretical grounding. This combination of contemporary and foundational literature ensures both relevance and conceptual depth. Such triangulation of sources strengthens the validity of theoretical synthesis (UNESCO, 2024; OECD, 2023).

The literature search process used structured keywords and Boolean operators to maximize coverage and relevance. Keywords included “Islamic education,” “artificial intelligence in education,” “AI ethics,” “human-centered learning,” “digital transformation,” “Islamic pedagogy,” “character education,” and “educational technology ethics.” Boolean combinations such as AND, OR, and NOT were applied to refine search results. Additional sources were identified through backward and forward citation tracking. This iterative search process helped ensure that no significant studies were overlooked. As a result, the dataset represents a comprehensive body of knowledge relevant to the research objectives (Booth et al., 2021; Snyder, 2019).

To maintain academic rigor, the study applied inclusion and exclusion criteria. Included studies were required to focus on Islamic education, educational technology, artificial intelligence, ethics in education, or related interdisciplinary fields. Only peer-reviewed journal articles, academic books, and high-quality policy reports were selected. Studies that lacked methodological clarity, academic credibility, or relevance to the research questions were excluded. Additionally, purely technical AI studies without educational or ethical implications were omitted. This selection process ensured that only relevant and high-quality literature formed the basis of analysis. Consequently, the final corpus provided a strong foundation for theoretical synthesis (Page et al., 2021; Zawacki-Richter et al., 2022).

Data analysis was conducted using thematic content analysis, a qualitative method for identifying, analyzing, and interpreting patterns within textual data. The analysis began with repeated reading of selected literature to gain familiarity with key concepts and arguments. Initial coding was then performed to identify recurring themes such as AI ethics, Islamic educational values, human-centered learning, and digital transformation challenges. These codes were subsequently grouped into broader thematic categories. Through iterative refinement, relationships between themes were identified and synthesized into a coherent framework. This process enabled the construction of an integrative theoretical model for Islamic education in the AI era (Braun & Clarke, 2022; Neuendorf, 2020).

To enhance validity, the study employed theoretical triangulation by integrating multiple conceptual perspectives. These include Islamic educational philosophy, human-centered education theory, AI ethics, digital citizenship, transformative learning theory, and socio-technical systems theory. The use of multiple theoretical lenses allows for a more comprehensive understanding of the research problem. It also reduces the risk of bias associated with single-theory analysis. Through triangulation, the study ensures that findings are robust, balanced, and multidimensional. This approach supports the development of a well-grounded and conceptually rich framework for reconstructing Islamic education in the age of artificial intelligence (Floridi, 2023; Kamali, 2023).

Finally, the methodological process culminated in the development of a conceptual framework titled the Human-Centered Islamic AI Education Framework (HCAIEF). This framework synthesizes insights from the reviewed literature to propose an integrative model of Islamic education that aligns technological innovation with ethical and spiritual principles. The HCAIEF emphasizes human dignity, moral responsibility, teacher agency, and ethical AI integration in educational systems. It serves as the analytical foundation for the subsequent findings and discussion section. By combining systematic review methods with interdisciplinary theoretical synthesis, this study contributes to the growing body of literature on Islamic education and digital transformation. The methodology thus ensures both academic rigor and conceptual innovation.

Findings and Discussion

The analysis of the selected literature reveals that artificial intelligence is fundamentally reshaping the epistemological and pedagogical foundations of Islamic education. AI systems are no longer merely supportive tools but actively influence how knowledge is accessed, constructed, and evaluated. This shift creates both opportunities for enhanced learning and risks related to ethical dilution and over-automation. Islamic education, with its strong moral and spiritual orientation, is uniquely positioned to respond to these transformations. The findings indicate that without a strong ethical framework, AI integration may lead to a reductionist view of education that prioritizes efficiency over human development. Therefore, a reconstruction of Islamic education is required to ensure alignment with human-centered values (Holmes et al., 2021; UNESCO, 2024).

One of the central findings is that AI significantly enhances personalized learning in educational environments. Adaptive learning systems allow students to learn at their own pace, receive immediate feedback, and access customized learning pathways. This has the potential to improve academic performance and learner engagement. However, personalization driven purely by algorithms may neglect the moral and spiritual dimensions of learning emphasized in Islamic education. The literature suggests that personalization must be balanced with ethical and value-based

guidance. Without this balance, learning risks becoming fragmented and overly individualized (Zawacki-Richter et al., 2022; Selwyn, 2024).

Another important finding is the increasing use of AI-driven assessment systems in education. These systems can evaluate student performance with high efficiency and consistency. However, concerns arise regarding fairness, transparency, and accountability in algorithmic assessment. Islamic educational philosophy emphasizes justice (‘adl) and fairness in all evaluative processes. Therefore, reliance on opaque AI systems without ethical oversight may conflict with core Islamic principles. The findings highlight the need for human supervision in AI-based assessment systems to ensure ethical integrity (Floridi, 2023; Kamali, 2023).

The literature also reveals that AI contributes to the reconfiguration of teacher roles in Islamic education. Teachers are increasingly supported by AI tools that assist with instructional delivery, grading, and learning analytics. While this may reduce administrative burdens, it also raises concerns about the potential marginalization of teachers’ moral and spiritual roles. In Islamic pedagogy, teachers serve as moral exemplars and guides (murabbi), not merely content deliverers. Therefore, AI should complement rather than replace the relational and ethical dimensions of teaching. Maintaining teacher centrality is essential for preserving the integrity of Islamic education (Memon, 2021; Hashim, 2021).

A further finding concerns the rise of digital dependency among learners. The integration of AI and digital platforms has increased students’ reliance on technology for learning and problem-solving. While this enhances accessibility, it may also weaken independent التفكير and critical reflection. Islamic education emphasizes tafakkur (reflection) and tadabbur (deep contemplation) as essential learning processes. Over-reliance on AI tools may undermine these intellectual and spiritual practices. Therefore, balanced technology use is essential to maintain cognitive and spiritual development (OECD, 2023; Sahin, 2022).

The analysis also identifies significant ethical risks associated with data-driven education systems. AI systems rely heavily on data collection, including sensitive student information. This raises concerns about privacy, surveillance, and data ownership. Islamic ethics strongly emphasizes amānah (trustworthiness) and the protection of personal dignity. Unregulated data usage may violate these ethical principles. As a result, the study highlights the need for robust ethical governance frameworks in AI-powered Islamic education systems (Floridi, 2023; UNESCO, 2024).

Another key finding relates to the emergence of algorithmic bias in educational technologies. AI systems often reflect the biases embedded in their training data and design processes. This can result in unfair treatment of certain student groups or distorted educational recommendations. Islamic education prioritizes justice and equality in all aspects of learning. Therefore, algorithmic bias poses a significant ethical challenge. The literature emphasizes the importance of transparency, accountability, and human oversight in mitigating such risks (Kamali, 2023; Holmes et al., 2021).

The findings also show that AI has expanded access to Islamic education globally. Online platforms and AI-driven tools enable students from diverse geographical locations to access Islamic learning resources. This democratization of knowledge is considered a major positive development. However, access alone does not guarantee meaningful learning outcomes. Without proper guidance, students may encounter fragmented or decontextualized religious knowledge. Therefore, AI-based access must be accompanied by structured pedagogical and ethical frameworks (UNESCO, 2024).

Another significant theme is the importance of human-AI collaboration in education. The literature suggests that the most effective educational models are those that combine human judgment with machine intelligence. AI can handle repetitive and data-intensive tasks, while humans provide ethical reasoning and contextual understanding. Islamic education strongly supports the preservation of human agency in decision-making processes. This alignment suggests that AI should be viewed as a tool rather than an autonomous authority in education. Human-AI collaboration thus becomes a central principle in the reconstructed educational paradigm (Holmes et al., 2021; Selwyn, 2024).

The study also finds that ethical literacy is increasingly essential for students and educators. Ethical literacy involves understanding moral principles and applying them in digital and technological contexts. In AI-driven environments, ethical dilemmas frequently arise regarding fairness, privacy, and responsibility. Islamic education provides a strong ethical foundation through its emphasis on moral consciousness (taqwā). Strengthening ethical literacy ensures that learners can critically engage with AI systems. Therefore, ethical education must be integrated into Islamic curricula (Kamali, 2023; Halstead, 2021).

A further finding highlights the importance of spiritual development in technologically mediated education. While AI enhances cognitive learning, it does not inherently support spiritual growth. Islamic education emphasizes the integration of intellect (‘aql), heart (qalb), and soul (ruh). Overemphasis on AI-driven cognitive processes may neglect these spiritual dimensions. The literature suggests that spiritual education must remain central in Islamic learning environments. This ensures the holistic development of learners (Hashim, 2021; Biesta, 2022).

The research also identifies the need for critical digital literacy in Islamic education. Students must be able to critically evaluate information generated or curated by AI systems. This includes recognizing misinformation, understanding algorithmic influence, and evaluating digital content ethically. Islamic education supports such critical engagement through principles of inquiry and reflection. Therefore, digital literacy becomes an essential competency in contemporary Islamic learning systems. It ensures that students are not passive consumers of technology but active critical thinkers (Sahin, 2022; OECD, 2023).

Another important finding is the growing relevance of values-based curriculum integration. The literature emphasizes that AI integration in education must be guided

by ethical and spiritual values. Islamic education provides a comprehensive value system that includes justice, compassion, honesty, and wisdom. Embedding these values into AI-enhanced curricula ensures that technology serves human development. Without such integration, educational systems risk becoming value-neutral or ethically weak. Therefore, curriculum reform is essential in the AI era (UNESCO, 2024; Kamali, 2023).

The study also highlights the importance of institutional governance in AI adoption. Educational institutions must develop policies that regulate the ethical use of AI technologies. This includes guidelines on data usage, assessment systems, and teacher roles. Islamic educational institutions are particularly responsible for ensuring alignment with moral and religious principles. Strong governance structures are necessary to prevent misuse of technology. Therefore, institutional leadership plays a critical role in successful AI integration (Holmes et al., 2021; Selwyn, 2024).

The findings further indicate that AI may contribute to the commodification of education. As AI systems become more integrated into educational services, there is a risk that education becomes treated as a commercial product. This may undermine its spiritual and moral purposes. Islamic education fundamentally views knowledge as a sacred trust rather than a commodity. Therefore, commercialization of education must be critically examined. The literature calls for ethical safeguards to preserve the integrity of educational values (Floridi, 2023; Kamali, 2023).

Finally, the findings demonstrate that a human-centered paradigm is essential for the future of Islamic education. This paradigm emphasizes dignity, ethics, relational learning, and spiritual development. AI must be positioned as a supportive tool that enhances, rather than replaces, human educational roles. Islamic education provides a strong philosophical foundation for this approach. The integration of human-centered principles ensures that technological advancement remains aligned with moral and spiritual objectives. This forms the basis for the proposed Human-Centered Islamic AI Education Framework (HCAIEF).

Table: Human-Centered Islamic AI Education Framework (HCAIEF)

Dimension	**Islamic Concept**	**AI-Education Function**	**Human-Centered Outcome**
Moral Foundation	*Taqwā*, *Akhlāq*	Ethical AI governance in learning systems	Moral responsibility
Knowledge Orientation	*‘Ilm*, *Tafakkur*	AI-supported knowledge personalization	Critical thinking
Pedagogical Role	*Ta‘līm*, *Tarbiyah*, *Ta’dīb*	AI-assisted instruction (not replacement of teachers)	Teacher-central relational learning

Dimension	**Islamic Concept**	**AI-Education Function**	**Human-Centered Outcome**
Ethical Principle	*'Adl*, *Amānah*	Fair algorithmic assessment & data protection	Justice & trust
Spiritual Dimension	*Tazkiyah*, *Ruhiyyah*	Reflection-based digital learning environments	Spiritual growth
Social Learning	*Ukhuwwah*, *Shūrā*	Collaborative AI learning platforms	Community engagement
Digital Competence	Digital literacy	AI literacy & critical media evaluation	Responsible digital citizenship
Human Agency	*Khilāfah*	Human-in-the-loop AI systems	Human autonomy
Learning Ethics	*Adab*, *Raḥmah*	Ethical communication in digital platforms	Empathy & civility
Educational Purpose	*Maṣlaḥah*	AI for social good and sustainability	Public benefit orientation

The Human-Centered Islamic AI Education Framework (HCAIEF) positions Islamic ethical and pedagogical principles as the foundation for guiding artificial intelligence integration in education. The framework responds to the growing concern that AI-driven systems may reduce education to technical efficiency while neglecting moral and spiritual dimensions. By embedding Islamic concepts such as taqwā, 'adl, and raḥmah, the framework ensures that technological advancement remains aligned with human dignity. This integration reflects a broader shift in educational theory toward values-based and ethically grounded digital transformation. Consequently, the framework serves as a bridge between classical Islamic educational philosophy and contemporary AI-driven learning systems (UNESCO, 2024; Kamali, 2023).

A central implication of the framework is the redefinition of moral foundations in AI-supported education. Instead of treating ethics as an external constraint, HCAIEF integrates morality into the core architecture of educational systems. Concepts such as taqwā and akhlāq function as guiding principles for both human decision-making and AI governance. This ensures that educational technologies are developed and used within ethical boundaries. The literature suggests that such integration is essential for preventing value-neutral or ethically ambiguous AI systems. Therefore, Islamic moral philosophy becomes an active component in technological design and implementation (Floridi, 2023; Halstead, 2021).

The framework also emphasizes the importance of teacher-centered relational pedagogy in AI-enhanced environments. While AI can automate instructional delivery and assessment, it cannot replace the moral and spiritual role of educators. In Islamic education, teachers function as murabbī who guide both intellectual and ethical

development. HCAIEF therefore positions AI as a supportive tool that enhances, rather than diminishes, teacher agency. This approach ensures that educational relationships remain central to the learning process. Consequently, human interaction remains a critical dimension of meaningful education (Memon, 2021; Hashim, 2021).

Another important implication is the strengthening of critical thinking through AI-supported learning. The framework integrates tafakkur (reflection) with AI-driven personalization tools to enhance cognitive development. However, it explicitly rejects passive consumption of AI-generated content. Instead, learners are encouraged to critically evaluate information and engage in reflective inquiry. This aligns with contemporary educational research emphasizing the importance of higher-order thinking skills. Therefore, HCAIEF promotes an active and reflective learning culture in digital environments (OECD, 2023; Sahin, 2022).

The framework also provides a strong basis for addressing ethical concerns related to data and algorithmic systems. AI technologies often rely on extensive data collection, raising concerns about privacy and surveillance. Islamic ethics emphasizes amānah (trustworthiness) and protection of personal dignity. HCAIEF incorporates these principles into the governance of educational technologies. This ensures that data usage remains transparent, accountable, and ethically justified. As a result, ethical oversight becomes an integral part of AI implementation in education (Floridi, 2023; UNESCO, 2024).

In addition, the framework highlights the importance of spiritual development in technologically mediated education. Unlike purely cognitive models of learning, HCAIEF integrates tazkiyah (spiritual purification) and ruhiyyah (spiritual growth) into educational processes. This ensures that learners develop not only intellectual competence but also spiritual awareness. AI systems are therefore designed to support reflective and value-based learning experiences. This integration addresses the risk of spiritual disconnection in digital learning environments. Consequently, education becomes a holistic process of intellectual and spiritual development (Biesta, 2022; Hashim, 2021).

The framework further strengthens collaborative learning and social engagement through the concept of shūrā (consultation). AI-enabled platforms can facilitate collaborative problem-solving and peer interaction. However, HCAIEF ensures that such collaboration remains grounded in ethical and respectful communication. This promotes social cohesion and reduces the risk of polarization in digital spaces. The framework therefore supports the development of responsible digital communities. This aligns with global educational priorities for fostering collaborative competencies (UNESCO, 2024; Deardorff, 2022).

Another key contribution of HCAIEF is the emphasis on human agency in AI systems. The framework adopts a “human-in-the-loop” approach, ensuring that AI does not operate autonomously in educational decision-making. Instead, human judgment remains central in interpreting and applying AI outputs. This reflects Islamic educational principles that emphasize human responsibility (khilāfah) in managing

knowledge and technology. Therefore, AI is positioned as a tool that extends human capability rather than replaces it. This balance is essential for ethical educational transformation (Holmes et al., 2021; Selwyn, 2024).

The framework also reinforces the importance of digital ethics and adab in communication. Online learning environments often lack the interpersonal constraints present in traditional classrooms. HCAIEF addresses this by integrating adab (proper conduct) into digital interaction guidelines. This encourages respectful communication, empathy, and intellectual humility. Such values are essential for maintaining ethical standards in digital learning environments. Therefore, digital ethics becomes an extension of Islamic moral education (Kamali, 2023; Halstead, 2021). Furthermore, HCAIEF emphasizes the role of education in achieving social good and sustainability (maṣlaḥah). AI technologies are directed toward improving not only individual learning outcomes but also collective well-being. This includes promoting equity, accessibility, and sustainability in education systems. Islamic education's emphasis on public benefit aligns strongly with this objective. Therefore, AI becomes a means of achieving broader social and ethical goals. This ensures that technological development remains socially responsible (OECD, 2023; UNESCO, 2024).

Conclusion

The study demonstrates that the integration of artificial intelligence into Islamic education requires a fundamental rethinking of educational philosophy, pedagogy, and ethics. While AI offers significant opportunities for enhancing learning efficiency, personalization, and accessibility, it also introduces complex ethical and spiritual challenges. The findings indicate that without a strong ethical framework, AI risks undermining the human, moral, and spiritual dimensions of education. Islamic educational philosophy, with its emphasis on *taqwā*, *'adl*, *raḥmah*, and *adab*, provides a robust foundation for addressing these challenges. Therefore, a human-centered paradigm is essential for ensuring that technological innovation remains aligned with educational values.

This study proposes the Human-Centered Islamic AI Education Framework (HCAIEF) as an integrative model for reconstructing Islamic education in the digital age. The framework emphasizes the centrality of human agency, ethical responsibility, spiritual development, and teacher-student relationships in AI-enhanced learning environments. It positions AI as a supportive tool rather than a replacement for human educators. By integrating Islamic educational principles with contemporary theories of AI ethics and human-centered education, the framework offers a comprehensive approach to educational transformation. This contributes to both theoretical advancement and practical guidance for Islamic educational institutions facing digital disruption.

References

Al-Attas, S. M. N. (2022). *Islam and secularism in education*. ISTAC.

Al-Attas, Syed Muhammad Naquib. (1991). *The concept of education in Islam: A framework for an Islamic philosophy of education*. International Institute of Islamic Thought and Civilization (ISTAC).

Alauddin, Firman, dkk., (2023). "Pengaruh Media Sosial dan Game Online Terhadap Akhlak Siswa di Madrasah Aliyah Masyariqul Anwar Carigin," Ta'allum: Jurnal Pendidikan Islam, Vol. 11, No. 1, Juni

Alauddin, M., Rahman, M. M., & Hasan, M. K. (2023). Social media use and students' character development in the digital era. *International Journal of Educational Research Review, 8*(2), 145–159.

Albert Bandura. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.

Amin, S., I. Abinnashih, and R. C. Dewi. (2025). "Utilizing CBT Based E-Learning to Enhance the Quality of Education at MTs N 2 Purbalingga." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam.

Andy Field. (2024). *Discovering statistics using IBM SPSS Statistics* (6th ed.). SAGE Publications.

Arfani, A. A. D., P. S. Fintani, T. Falasifa (2025). "Implementation of the Incentive Grant Policy by the Central Java Provincial Government for Non-Formal Religious Education Teachers at BADKO LPQ in Belik Subdistrict." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam.

Bakar, A. B. A., and M. R. Ridho. (2025). "The Impact of Human Psychological Conditions on the Application of Islamic Law in Determining the Validity of Worship." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam.

Biesta, G. (2022). *World-centred education: A critical analysis*. Routledge.

Booth, A., Sutton, A., & Papaioannou, D. (2021). *Systematic approaches to literature review*. Sage.

Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. Sage.

Casudi, Casudi, Haris Diar Rizki, Siti Winda Normasari, Prada Laila Isyrina, and Elza Roikhatul Miskiyyah. (2025). "Integration of Character Education in Aqidah Akhlaq Learning for Fourth Grade Students at Madrasah Diniyah Baabussalam, Kemukten Village." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam 5(2):290–318.

Deardorff, D. K. (2022). *Manual for intercultural competence education*. Routledge.

Epstein, J. L. (2018). *School, family, and community partnerships: Preparing educators and improving schools* (3rd ed.). Routledge.

Faiz, M. Abd, S. Amin, E. N. Sari, (2025). "Enhancing Qur'anic Memorization through the Yanbu'a Method: The Role of Tahfidz Teachers at SD Takhassus Al-Qur'an Walisanga Tanjung." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam.

Fariduddin, Ecep Ishak. (2025). "Fiqh Education in the Age of Digital Clicks and Social Conflict : Preserving Islam Nusantara Amidst Social Fragmentation." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam 5(1):126–43.

Fatwa, M., and M. Sa'diyah. (2025). "Building the Mental of Santri Through 40 Days of Sunnah Fasting (A Study at Pondok Pesantren Darul Amanah Sukorejo Kendal)." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam.

Firmansyah, Firmansyah. (2025). "The Purpose of Education from the Perspective of Hadith in Instilling Islamic Values Dynamically in Daily Life." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam 5(2):340–58.

Floridi, L. (2023). *The ethics of artificial intelligence*. Oxford University Press.

Ginting, Rahmanita dkk., (2021) Etika Komunikasi Dalam Media Sosial: Saring Sebelum Sharing. Cirebon, Penerbit Insania, Cet. Ke-1,.

Government of Indonesia. (2003). *Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System*. Ministry of National Education.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2022). *Multivariate data analysis* (9th ed.). Cengage Learning.

Halstead, J. M. (2021). Islamic values in contemporary education. *British Journal of Religious Education, 43*(4), 356–368.

Hana, Aulia Fadhilah, dkk., (2023). "Pengaruh Media Sosial Instagram Terhadap Perubahan Perilaku Komunikasi Secara Langsung Pada Generasi Z di Jakarta Selatan," Discourse: Journal of Social Studies And Educatio, Vol. 1, No. 1

Handayani, F., M. H. Basari (2025). "Implementation of Boarding School Learning in Building Religious Character at SMA Daarul Qur'an Bandung." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam.

Hasani, Khairunnisa, Khojir Khojir, Muhammad Saparuddin, and Atik Atun Farida Munawaroh. 2025 "Implementation of Multicultural Education in Islamic Religious Education Learning to Foster Tolerance and Brotherhood in Junior High School (SMPN) 2 Samarinda." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam

Hashim, R. (2021). Islamic pedagogy and moral development. *Journal of Islamic Education, 29*(1), 45–66.

Holmes, W., Bialik, M., & Fadel, C. (2021). *Artificial intelligence in education*. Center for Curriculum Redesign.

Jacob Cohen>, Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.

John W. Creswell, & J. David Creswell. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

John W. Santrock. (2019). *Life-span development* (17th ed.). McGraw-Hill Education.

Kamali, M. H. (2023). *Maqasid al-Shariah and ethics of technology*. Islamic Texts Society.

Khaidir, dkk.,(2021) Pendidikan Akhlak Anak Usia Dini. Aceh, Yayasan Penerbit Muhammad Zaini,

Latifah, Yunia Dwi. (2025) "Challenges and Strategies in Strengthening the Implementation of the Independent Curriculum in Islamic Religious Education Learning." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam 5(2):279–89.

Linda Darling-Hammond. (2017). *Empowered educators: How high-performing systems shape teaching quality around the world*. Jossey-Bass.

Mabruri, M. O., S. Amin, (2025) "The Use of the Quran Belajar Indonesia Application in Quran Learning at Madrasah Diniyah Takmiliyah Awaliyah (MDTA) Hidayatut Tholabah, Tegalreja Village, Banjarharjo District, Brebes Regency." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam.

Mahrita, M., M. Afnanda, (2025) "The Concept of Creed on Allah Decree in the Nussa and Rarra Animated Film." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam.

Memon, N. (2021). Islamic education and human development. *Religious Education Journal*, *43*(4), 385–397.

Montgomery, D. C., Peck, E. A., & Vining, G. G. (2021). *Introduction to linear regression analysis* (6th ed.). John Wiley & Sons.

Mukhlis, M. (2025) "The Effectiveness of the Lok-R Model in Enhancing Academic Achievement in the Islamic Religious Education Study Program." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam.

Organisation for Economic Co-operation and Development. (2021). *21st-century readers: Developing literacy skills in a digital world*. OECD Publishing.

Pamungkas, M. Imam, (2023)Akhlak Muslim Modern: Membangun Karakter Generasi Muda. Bandung: Penerbit Marja,

Qomariyah, Alfiyah Ayu, and Fina Surya Anggraini. (2025) "Implementation of Islamic Religious Education Learning in the Independent Curriculum Using the Jigsaw Method to Enhance Student Activeness at SMAN 1 Kutorejo." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam 5(2):319–39.

Ribble, M. (2015). *Digital citizenship in schools* (3rd ed.). International Society for Technology in Education (ISTE).

Rivai, F. A., and N. Rahmawati. (2025) "Workshop, Assistance, and Capacity Building in the Development of Teaching Materials Based on 21st-Century Learning." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam.

Robert M. DeVellis, & Thorpe, C. T. (2021). *Scale development: Theory and applications* (5th ed.). SAGE Publications.

Rusydi, A., A. Khalidi, and Z. Najirah. (2025). "The Effect of Colored Headscarf Punishment on Improving the Speaking Skills (Maharah Kalām) of Female Students at Pondok Pesantren Ihyā Ulumuddīn Nur Sufi'iyah Amuntai." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam.

Sahin, A. (2022). *Islamic education in the digital age*. Palgrave Macmillan.

Selwyn, N. (2024). *Digital education and society*. Routledge.

Setiawan, Dede, Dkk., (2019) "Pengaruh Media Sosial Terhadap Akhlak Siswa (Studi Kasus di Lembaga Pendidikan Fikar School)" Jurnal Mozaic: Islam Nusantara, Vol. 5, No. 1

Snyder, H. (2019). Literature review methodology. *Journal of Business Research*, *104*, 333–339.

Syifa, A., and N. Hasanah. (2025). "The Thoughts of Shaykh Abdus Shamad Al-Palimbani in Hidayatus Salikin on the Concept of Tazkiyatun Nafs." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam

Tanuri, T. (2025). "Exploring the Roles and Challenges of the Sandwich Generation in the Context of Islamic Education and Family Ethics." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam

Taylor, E. W., & Cranton, P. (2023). *Transformative learning theory handbook*. Jossey-Bass.

Umam, Chotibul, (2021) Pendidikan Akhlak, Upaya Pembinaan Akhlak Melalui Program Penguatan Kegiatan Keagamaan. tt, Guepedia.

Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional, Bab II Pasal 3.

UNESCO. (2024). *Reimagining our futures together*. UNESCO Publishing.

United Nations Educational, Scientific and Cultural Organization. (2023). *Global education monitoring report 2023: Technology in education—A tool on whose terms?* UNESCO Publishing.

Urie Bronfenbrenner. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.

Wahyuni, Siti, and Tri Handriani. (2025) "Teaching Arabic Pegon through the AIR (Auditory Intellectually Repetition) Learning Model for New Female Students at the Tahfizh Al-Qur'an Islamic Boarding School, Lirboyo." AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam 5(2):263–78.

Zawacki-Richter, O., et al. (2022). Artificial intelligence in higher education. *International Journal of Educational Technology, 19*(2), 1–24.