FENOMENA Journal of the Social Sciences e-ISSN: 2656-7369 | p-ISSN: 1412-5439

Fenomena: Journal of the Social Sciences
Vol. 25 No. 2 (2026) : 147-164
Available online at https://fenomena.uinkhas.ac.id/index.php/fenomena/

Integrative Epistemology in Islamic Education: Classical Tradition and AI Challenges

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DOI: https://doi.org/10.35719/fenomena.v25i2.633

Received: February 3, 2026	Revised: April 4, 2026	Accepted: April 6, 2026	Published: October 20, 2026

Abstract:

Current research remains mostly technocratic and fragmented, neglecting the integration of ethical, spiritual, and revelatory aspects into Islamic educational philosophy, even as artificial intelligence (AI) advances rapidly and transforms the epistemological underpinnings of education. This research reexamines the works of Al-Ghazali and Ibn Rushd, who represent opposing epistemological traditions of spiritual-intuitive and rational-empirical approaches, to create an integrative framework that bridges this gap. Primary writings by scholars, along with current literature on AI and education, serve as the main data sources for this study, which takes a qualitative philosophical-hermeneutic methodology. The research employs comparative and interpretive analysis to examine key themes, including dehumanization, algorithmic bias, and the existential threats posed by AI in educational settings. The research recommends an integrated epistemological framework that methodically integrates revelation (*wahy*), reason (*'aql*), and ethical practice (*akhlaq*) into the learning process. Ethical-spiritual consciousness is presented as the cornerstone of the synthesis, with logical inquiry serving as its operational mechanism within a complementary framework. In the age of artificial intelligence, this leads to a new theoretical framework, "integrative Islamic AI-oriented epistemology," that provides a comprehensive conceptual foundation for developing intellectually sound, morally grounded, and spiritually focused instructional methods.

Keywords: *Ethics, Artificial Intelligence, Classical Tradition, Integrative Epistemology, Islamic Educational Philosophy*

Abstrak:

Meskipun kemajuan kecerdasan buatan (AI) sangat cepat dan mengubah dasar pemahaman pendidikan, penelitian yang ada masih cenderung teknis dan terpisah, serta belum menggabungkan aspek etis, spiritual, dan wahyu dalam pendidikan Islam. Untuk mengatasi kekurangan tersebut, penelitian ini mengkaji kembali pemikiran Ibn Rushd dan Al-Ghazali yang mewakili tradisi rasional-empiris dan spiritual-intuitif secara saling melengkapi untuk membangun kerangka pemahaman yang terintegrasi. Penelitian ini menggunakan pendekatan kualitatif dengan metode filosofis-hermeneutik, dengan sumber data utama adalah karya-karya asli kedua tokoh serta literatur modern tentang AI dan pendidikan. Melalui analisis interpretatif dan perbandingan, penelitian ini meneliti masalah dehumanisasi, bias algoritma, dan tantangan eksistensial dalam pendidikan. Hasil penelitian menunjukkan suatu model epistemologi terintegrasi yang menghubungkan wahyu, akal, dan akhlak secara sistematis dalam proses pembelajaran. Sintesis ini menempatkan kesadaran etis-spiritual sebagai dasar, sementara rasionalitas dan berpikir kritis berfungsi sebagai alat operasional. Temuan ini menghasilkan formulasi teoretis baru yang disebut "epistemologi Islam terintegrasi berbasis AI," sebagai dasar konseptual untuk pengembangan praktik pendidikan yang cerdas secara intelektual, kuat secara etis, dan mendalam secara spiritual di era kecerdasan buatan.

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How to cite:	Suyono, S., Aunullah, I., & Olaifa, A. S. (2026). Integrative Epistemology in Islamic Education: Classical Tradition and AI Challenges. Fenomena, 25(2), 147–164. https://doi.org/10.35719/fenomena.v25i2.633
Publisher:	Centre for Research and Community Service (LP2M), Universitas Islam Negeri Kiai Haji Achmad Siddiq Jember

Introduction

Despite the rapid progress of artificial intelligence (AI) in revolutionizing educational methods and epistemological orientations globally, a large portion of current research remains primarily technocratic, focusing on effectiveness, automation, and cognitive performance while ignoring the ethical, spiritual, and ontological aspects of knowledge (Singh et al., 2025). This restriction points to a significant gap in connecting current AI discussions with the extensive Islamic epistemological tradition, which is inherently holistic and able to address problems such as dehumanization, algorithmic bias, and the loss of moral agency (Almasri, 2024). Al-Ghazali and Ibn Rushd, two prominent classical Muslim academics, are especially relevant here since their complementary viewpoints combine spiritual-intuitive and rational-demonstrative methods of learning. (Bearman & Ajjawi, 2023; Chow et al., 2023) While AI offers efficiency, personalization, and broader access, it also raises serious concerns about algorithmic bias, the erosion of moral responsibility, and the potential for dehumanization. Within Islamic education, these issues demand deeper philosophical engagement that goes beyond technical rationality and emphasizes ethics, spirituality, and human agency.

As a result, this research seeks to develop an integrated Islamic epistemological paradigm by combining the ideas of Al-Ghazali and Ibn Rushd to address the ethical, intellectual, and spiritual issues raised by AI, while also making a unique theoretical contribution in the form of an integrative Islamic AI-oriented epistemology (Brizendine, 2024). Recent studies in Islamic education emphasize digital transformation and curriculum reform, yet much of the literature remains fragmented—either privileging classical perspectives without addressing technological upheavals or focusing on AI without grounding discussions in Islamic epistemology (Nori & Altabaa, 2025). Consequently, the absence of integrative frameworks limits Islamic educational philosophy's ability to respond to global technological shifts (Norman & Ruhullah, 2024).

This study addresses the gap by examining integrative epistemology as a dialectical encounter between Islamic classical traditions and contemporary AI challenges (Raimi, 2024b). Drawing on insights from Al-Ghazali and Ibn Rushd, it proposes a balanced model uniting rationality and spirituality (Nusrat & Rahim, 2025). The goal is to construct an ethical, human-centered framework for education that aligns with classical heritage while addressing AI-era dilemmas (Papakostas, 2025).

As a result, this study's premise is that classical Islamic epistemology provides essential tools for resolving the epistemic and ethical problems posed by artificial intelligence in education. This research aims to develop an integrative epistemological framework that draws on the dialectical perspectives of intellectuals such as Al-Ghazali and Ibn Rushd to unite ethical responsibility, spiritual awareness, and rational

inquiry in AI-mediated educational environments. In addition to being retrospective, this strategy seeks to establish Islamic educational philosophy as an active and important participant in international discussions about ethical and human-centered AI. This study addresses the pressing need for a philosophical framework that ensures AI supports the holistic development of students and maintains education as a transformative process centered on wisdom (*hikmah*), moral integrity (*akhlaq*), and human flourishing, by bridging the gap between classical tradition and current technological realities.

Method

The revolutionary effects of Artificial Intelligence (AI) on education are transforming our ideas about knowledge, ethics, and human agency (Nusrat & Rahim, 2025). Nonetheless, current research remains highly technocratic and fragmented, and there has been little effort to deliberately integrate Islamic epistemology and AI ethics into academic discourse (Bearman et al., 2023a). Specifically, there is a paucity of studies that connect classical Islamic philosophical frameworks to current issues such as algorithmic bias, dehumanization, and the erosion of moral agency in AI-driven learning environments (Vučković & Sikimić, 2025a). This gap highlights the pressing need, from the standpoint of Islamic educational philosophy, to rebuild epistemological foundations that are spiritually grounded yet adaptable to technological change.

Using a qualitative philosophical-hermeneutic methodology, this study draws on primary texts by Al-Ghazali and Ibn Rushd, as well as current scholarly publications on AI and education published between 2010 and 2025, and purposively selects roughly 30–40 pertinent sources based on their epistemological and ethical relevance (Papakostas, 2025). The research employs cross-textual comparison and source triangulation to ensure philosophical validity, allowing for a rigorous and consistent reconstruction of an integrative epistemological framework (Vella, 2025). It is normative and conceptual rather than empirical, critically reinterpreting classical epistemological discourses in Islamic thought to address challenges posed by AI. The dataset consists of primary sources such as *Ihya' Ulum al-Din* by Al-Ghazali and *Tahafut al-Falasifa* by Ibn Rushd, alongside secondary materials drawn from peer-reviewed international journals (Scopus Q1–Q2, 2020–2025), books on AI ethics, and recent scholarship on Islamic education and digital transformation (Hovey et al., 2022).

Primary sources were selected for their influence on classical epistemology, while secondary sources were chosen purposively for scholarly credibility, relevance, and contemporary engagement with AI. Data collection was conducted through textual analysis and systematic literature review, using databases such as Scopus, SpringerLink, and Web of Science. Keywords included "Islamic educational philosophy," "epistemology," "artificial intelligence," and "ethics." Both classical manuscripts (in original and translation) and recent studies were analyzed to ensure historical depth and thematic comprehensiveness.

The study used a four-stage hermeneutic-analytical approach (Vella, 2025). Textual Interpretation – performing a close reading of ancient texts to glean epistemological concepts. Contextualization - placing traditional knowledge in the context of current discussions around education and technology; Dialectical Synthesis – pinpointing commonalities and conflicts between classical epistemology and the

challenges posed by AI; Philosophical reconstruction – establishing an inclusive epistemological framework that reconciles ethics, rationality, and spirituality (Alsaigh & Coyne, 2021).

Results and Discussion

Result

1. Different Manifestations of the Phenomenon

The introduction of Artificial Intelligence (AI) in education has generated new epistemological and pedagogical challenges. One of the most significant concerns is the dehumanization of education, as algorithmic systems increasingly mediate learning processes once rooted in dialogue between teacher and student. This emphasis on efficiency over human interaction risks reducing education to a transactional exchange of information, undermining its deeper aim of cultivating wisdom (*hikmah*) and moral character.

Table 1

Epistemological Findings on AI Challenges in Islamic Education

No	Key Finding	Identified Indicators/Patterns	Al-Ghazali's Perspective	Ibn Rushd's Perspective	Epistemological Synthesis
1	**Dehumanization of learning**	Reduced teacher–student interaction; increasing emphasis on efficiency and automation	Education emphasizes *tazkiyat al-nafs*, character formation, and *adab*	Education requires the use of reason and dialogical processes in the pursuit of truth	AI should function as a supporting instrument rather than a replacement for human pedagogical relationships
2	**Algorithmic bias and reductionism**	Knowledge is reduced to data, patterns, and measurable outputs	Knowledge should lead toward *'ilm* and *hikmah*, rather than merely information	Rational and demonstrative reasoning is required to examine the validity of knowledge claims	*'Aql* should critically evaluate AI-generated outputs, while *wahy* provides normative and ethical orientation
3	**Erosion of moral authority**	Increasing dependence on algorithmic systems in educational decision-making	Teachers function as moral and spiritual guides	Epistemic authority should be grounded in reasoned and demonstrable arguments	AI authority remains instrumental, while moral authority remains fundamentally human
4	**Fragmentation of knowledge**	Knowledge is divided into isolated and	*'Ilm*, *hikmah*, and *adab* constitute an	Rational integration across domains	AI should be situated within an

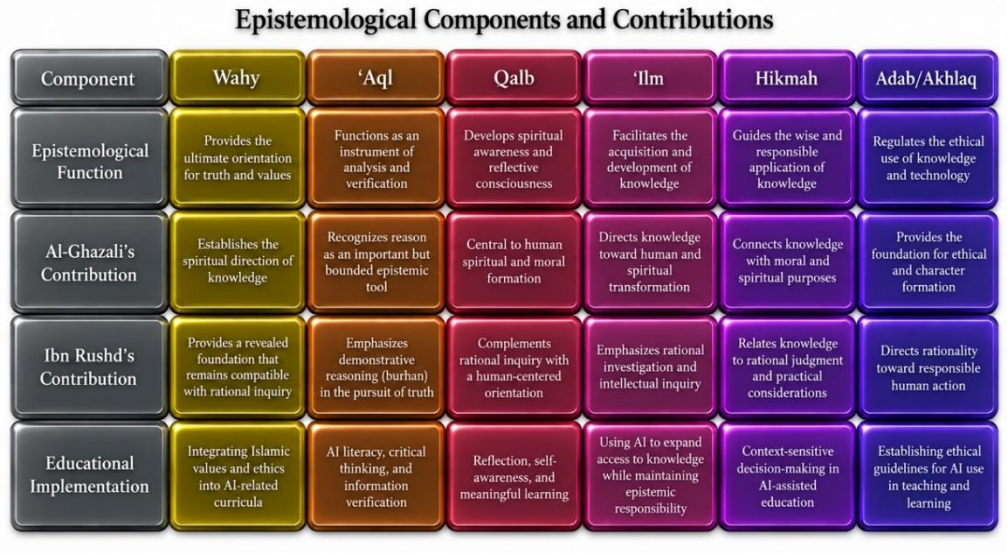
	context-specific information	integrated conception of knowledge	enables coherent understanding	epistemological framework integrating knowledge, values, and educational purposes

A related issue is the erosion of moral authority in teaching. In Islamic education, teachers have historically functioned not only as transmitters of knowledge but also as exemplars of ethical and spiritual behavior. The growing reliance on AI, portrayed as a neutral arbiter of truth, threatens to diminish this role. Yet such neutrality is misleading, since AI systems inevitably reflect the biases and values of their designers. Without epistemological grounding in truth, ethics, and spirituality, AI risks undermining the core mission of Islamic education: forming balanced, responsible, and God-conscious individuals. Thus, the incorporation of AI in education reveals pressing epistemological concerns requiring integrative frameworks that preserve human agency, morality, and spirituality within learning:

Algorithms, rather than conversational human interaction, are becoming increasingly prevalent in knowledge transmission. In addition to imparting knowledge, the teacher is responsible for fostering *adab* (ethics) and developing students' spiritual and moral character. This human-centered approach is being replaced by algorithmic systems that prioritize efficiency, uniformity, and measurable results as AI-driven platforms gain popularity. Consequently, education runs the risk of becoming transactional, with an emphasis on knowledge transfer rather than the comprehensive development of the student's intellect (*'aql*) and spirit (*qalb*).

Figure 1

Integrative Islamic AI-Oriented Epistemological Model



Dehumanization in education emerges when students are treated as data points rather than morally complex individuals. By reducing learners to test results, behavioral patterns, and predictive analytics, AI diminishes learning's ethical and

relational dimensions. Education is increasingly valued for productivity and employability rather than wisdom (*hikmah*) and human flourishing, reflecting a broader epistemological crisis. In Islamic educational philosophy, this trend contradicts the divine purpose of knowledge: self-realization, moral responsibility, and service. Re-establishing an integrative epistemology that unites reason, spirituality, and ethics is essential.

Data-driven models that disregard ethical and spiritual values risk dictating educational outcomes in ways that undermine holistic learning. Reductionism and algorithmic bias have become central concerns in the intersection of education and AI. Because AI systems are trained on large datasets that reflect the assumptions and priorities of their developers, they often reproduce and amplify existing social, cultural, and epistemological biases rather than function as neutral tools.

This directly challenges the principles of Islamic education, which emphasize justice (*'adl*) and inclusiveness (*shumuliyyah*) in the pursuit of knowledge. By prioritizing standardized testing and performance indicators, reductionist approaches neglect moral development, ethical reasoning, and spiritual growth. Such tendencies also minimize the significance of rational inquiry, central to Ibn Rushd, and soul purification (*tazkiyat al-nafs*), central to Al-Ghazali. To counteract these trends, Islamic educational philosophy must advance an integrative epistemology that rebalances reason, ethics, and spirituality, ensuring that education remains both intellectual and transformative.

One of the most critical consequences of Artificial Intelligence (AI) in education is the erosion of teachers' moral authority. In Islamic tradition, the *mu'allim* is not merely a transmitter of knowledge but a moral exemplar whose values and spiritual discipline shape learners' character. Al-Ghazali emphasized that knowledge without *adab* leads to corruption rather than enlightenment. Yet, as AI tools increasingly deliver content, assess performance, and provide feedback, the teacher's authority as a moral guide is gradually diminished. This shift risks redefining teachers as mere technology facilitators rather than protectors of holistic, value-based education.

Moreover, the portrayal of AI as a "neutral" arbiter of truth and efficiency conceals embedded cultural and ideological biases. Such assumptions undermine recognition of teachers' responsibility for cultivating intellectual, ethical, and spiritual growth. From the perspective of Islamic educational philosophy, this phenomenon demands a rethinking of epistemology that reasserts the teacher's indispensable role as a moral anchor, even within technology-mediated learning environments.

AI-based customization often promotes utilitarian learning that prioritizes skills while neglecting holistic development. This leads to the fragmentation of knowledge, where learners acquire isolated pieces of information disconnected from broader ethical, spiritual, and philosophical contexts. Such trends contrast sharply with the Islamic tradition of *'ilm*, which emphasizes integration as essential for nurturing comprehensive human growth.

The dominance of economic and vocational paradigms further reinforces fragmentation, valuing knowledge primarily for productivity rather than wisdom or moral cultivation. In Islamic educational philosophy, knowledge is meant to unite rational inquiry (*'aql*), ethical conduct (*akhlaq*), and spiritual refinement (*tazkiyah*). Confronting AI-driven fragmentation thus requires a revitalized epistemology that

restores the sacred purpose of knowledge as a means to achieve balance (*mizan*) and promote human flourishing.

2. Factors Influencing the Phenomenon

The integration of Artificial Intelligence (AI) into education creates complex epistemological challenges driven by several interrelated factors. A dominant emphasis on efficiency, scalability, and data-driven outcomes often sidelines ethical and spiritual considerations. In many contexts, AI is promoted as an inevitable solution, with little reflection on its broader implications for human development. This perspective accelerates the dehumanization of learning by shifting from human-centered pedagogy to machine-mediated instruction.

Globalization further amplifies these difficulties. AI platforms, largely shaped by Western epistemological assumptions, are widely distributed in international markets. When adopted uncritically in Muslim educational settings, such systems risk imposing standardized models that erode indigenous traditions and spiritual values. This undermines the contextual richness of Islamic pedagogy, which prioritizes cultural diversity, moral responsibility, and the unity of knowledge.

Table 2
Interrelated Factors and Epistemological Challenges of AI in Islamic Education

Driving Factor	Educational Transformation	Epistemological Consequence	Implication for Islamic Education
Technological determinism	AI is presented as an inevitable solution to educational problems	Human judgment becomes increasingly dependent on technological systems	Risk of weakening human agency and the teacher's formative role
Efficiency and scalability	Learning is optimized through automation, standardization, and measurable outcomes	Knowledge tends to be reduced to quantifiable information	Ethical, spiritual, and character-forming dimensions may receive less attention
Data-driven decision-making	Algorithms increasingly influence learning recommendations and assessment	Algorithmic outputs may be treated as objective or authoritative	Requires critical verification through *'aql*, *wahy*, and ethical reasoning
Globalization of AI platforms	Similar technological systems are adopted across different educational contexts	Local epistemologies may be marginalized by standardized models	Islamic educational traditions require contextual adaptation rather than uncritical adoption
Weak ethical frameworks	Technological implementation may precede ethical reflection	The distinction between technical capability and moral legitimacy becomes blurred	*Adab*, *akhlaq*, and *hikmah* are needed to guide responsible AI use
Fragmentation of knowledge	AI organizes knowledge into specialized and easily retrievable information	Knowledge may become disconnected from broader purposes and values	Islamic education requires integration of *'ilm*, *hikmah*, spirituality, and

Classical Islamic philosophers such as Al-Ghazali and Ibn Rushd provided integrative epistemologies uniting rational thought, ethical conduct, and spiritual growth. Yet, their neglect in contemporary AI debates leaves education vulnerable to reductionist and technocratic approaches. Together, these factors demonstrate how technological determinism, globalization, and the marginalization of classical insights shape AI's epistemological challenges.

In the age of Artificial Intelligence (AI), technological determinism has become a dominant force in education. It assumes technological progress is the main driver of improvement, framing AI as the inevitable answer to issues like limited access, inefficiency, and personalization needs. This view reduces education to a technical project, neglecting moral, spiritual, and cultural dimensions vital to holistic human development. By portraying technology as neutral, it obscures the biases and values embedded in AI.

From the perspective of Islamic educational philosophy, this trend is hazardous. Education is not only knowledge transfer but also the cultivation of *akhlaq*, *tawazun*, and *taqwa*. Deterministic adoption risks dehumanization, diminished teacher authority, and fragmented knowledge. Technology must instead be framed as a tool guided ethically and spiritually.

The globalization of education has profoundly shaped how Artificial Intelligence (AI) is adopted in learning systems worldwide. In many Muslim contexts, these platforms are often embraced without sufficient critical adaptation, leading to the gradual imposition of foreign paradigms that may conflict with indigenous intellectual and spiritual traditions. This creates tension between global standardization and the preservation of epistemologies that emphasize integrative knowledge within Islamic philosophy.

Globalization also reinforces the dominance of English-language materials, standardized curricula, and universal assessment systems embedded in AI technologies. Consequently, globalization not only directs how AI is used but also contributes to the fragmentation of knowledge and erosion of moral authority in education. To address these challenges, Islamic educational philosophy must critically engage global technologies, ensuring AI strengthens rather than diminishes the holistic aims of education.

Another key challenge in adopting Artificial Intelligence (AI) in education is the absence of robust ethical frameworks to guide its development and use. Current debates on AI ethics often prioritize technical issues such as data privacy, fairness, and transparency, while neglecting deeper philosophical questions concerning meaning, moral responsibility, and human purpose. As a result, AI integration in education is frequently shaped by pragmatic and market-oriented goals rather than strong normative principles. This leaves education vulnerable to reductionism, where moral and spiritual development is eclipsed by the pursuit of efficiency and innovation.

From the perspective of Islamic educational philosophy, this weakness is especially concerning. Classical scholars stressed that knowledge (*'ilm*) must be inseparably linked to ethics (*akhlaq*) and spiritual refinement (*tazkiyah*). By reviving principles such as justice (*'adl*), trust (*amanah*), and balance (*mizan*), Islamic epistemology can enrich AI ethics, ensuring that educational technologies align with

the higher aims (*maqasid*) of nurturing God-conscious, responsible, and holistic individuals.

The growing discontinuity with tradition represents another challenge in adopting Artificial Intelligence (AI) in education. Contemporary debates often prioritize modern pedagogical or technological approaches deemed more "relevant" for the digital era, while neglecting the rich epistemological heritage of Islamic scholarship. This has created a gap between current educational dilemmas and classical insights, such as Al-Ghazali's emphasis on the moral and spiritual dimensions of knowledge and Ibn Rushd's advocacy for rational inquiry and critical thought. Consequently, modern approaches frequently downplay the integration of the rational mind (*'aql*) with the spiritual heart (*qalb*).

This neglect weakens the philosophical foundation of Islamic education and exposes it to reductionist and technocratic models. By overlooking traditional perspectives, education risks prioritizing efficiency and utility over the *maqasid*—the cultivation of virtue, justice, critical reasoning, creativity, and *taqwa*. Re-engaging classical thought enables the reconstruction of an integrative epistemology, faithful to Islamic heritage yet responsive to technological change.

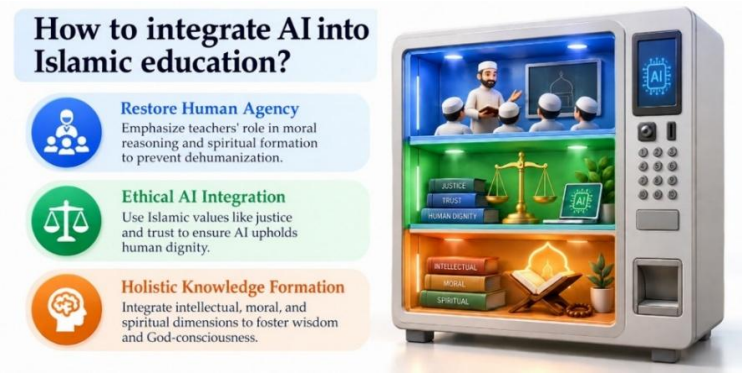
3. Implications in a Transformative Way

The findings of this study carry significant transformative implications for rethinking Islamic educational philosophy in the age of Artificial Intelligence (AI). First, the problem of dehumanization stresses the importance of restoring human agency to the center of learning. Teachers must remain mentors in moral reasoning and spiritual formation, consistent with the Islamic conception of the *mu'allim* as a guide for both intellect and character.

Second, the spread of algorithmic bias and reductionism requires that AI be integrated ethically into education. Islamic epistemology provides enduring values—justice (*'adl*), trust (*amanah*), and balance (*tawazun*)—that can serve as normative benchmarks in AI design and application. These principles ensure that technology upholds human dignity and holistic development rather than undermining them.

Third, the fragmentation of knowledge and erosion of moral authority emphasize the need for holistic knowledge formation. Islamic educational philosophy highlights the unity of knowledge (*wahdat al-'ilm*), integrating intellectual, moral, and spiritual dimensions. Reclaiming this integrative view transforms education into a pursuit of wisdom (*hikmah*), accountability, and God-consciousness (*taqwa*).

Figure 2
Integrative AI into Islamic education



Education must reinstate the teacher's position as a leader of both the intellect (*'aql*) and the soul (*qalb*). Worries regarding the declining influence of human agency in teaching and learning have been exacerbated by the growing use of artificial intelligence (AI) in education. According to Islamic educational philosophy, this change undermines the very core of education, which is not just the absorption of knowledge but the development of the complete creation of the human being. Teachers (*mu'allim*) are responsible for molding the learner's mind (*'aql*) and spiritual heart (*qalb*), directing them toward wisdom (hikmah) and God-consciousness (*taqwa*). Thus, in an AI-driven society, it is essential to refocus on human agency to bring back education's moral and transformative aspects.

Furthermore, acknowledging human agency guarantees that education maintains its relational and dialogical nature. According to Islamic tradition, knowledge is imparted through interaction, mentorship, and lived example, in which the teacher personifies the principles and virtues being taught. This human role is recentered by viewing AI as an aid rather than a replacement for moral and spiritual direction. In addition, it necessitates fostering in students the abilities for critical thinking, moral decision-making, and spiritual understanding, which cannot be contracted out to computers.

Islamic epistemology gives guidelines for the usage of artificial intelligence in the areas of justice ("*adl*"), responsibility (*amanah*), and balance (*tawazun*). Contemporary discussions of ethics tend to focus on procedural matters such as data security and fairness, with less attention to questions of meaning, morality, and the purpose of humanity. From the perspective of Islamic educational philosophy, this disparity needs a greater focus on ethical principles based on the heritage of *'ilm* and *akhlaq*. Trust (*'adl*), justice (*'adl*), and balance (*'adl*) are important aspects of classical Islamic thought, and these values can act as normative anchors for AI-driven educational methods.

Therefore, ethically integrating AI into education necessitates redefining technology as a tool for human flourishing rather than as an independent factor in educational results. In an Islamic context, this means that the development and application of artificial intelligence must align with the overarching goals (*maqasid al-shariyah*), such as developing moral character, intellectual improvement, and spiritual awareness. Islamic educational philosophy, in this manner, provides not just a critique of AI's shortcomings but also a positive way to use technology in the service of Islam. of moral, human-centric, and spiritually significant instruction.

Combining religious and rational traditions ensures that education accounts for both intellectual and moral growth. The tendency to break knowledge into discrete, practical pieces, with a focus on the technical, is one of the most pressing implications of Artificial Intelligence (AI) in education. The comprehensive view of education at the core of Islamic tradition is in danger of being undermined by this reductionist tendency.

The ethical correctives to technological reductionism may be rebuilt using classical perspectives from Al-Ghazali and Ibn Rushd. The growth of Artificial Intelligence (AI) offers a chance for philosophical rebirth in Islamic educational philosophy, in addition to real-world and ethical issues. Classical academics such as Al-Ghazali and Ibn Rushd developed epistemological frameworks over the centuries that combined rational inquiry with spiritual and moral development. Classical

notions of knowledge, ethics, and human purpose can provide remedies for the reductionism and dehumanization that are intrinsic to AI-driven education through dialectical interaction.

In addition to reasserting tradition, this renewal calls for a crucial fusion of legacy and modernity. The Islamic approach to education must actively engage in current discussions on digital teaching, posthumanism, and AI ethics while offering a unique perspective grounded in integrative epistemology. As a result, it can create frameworks that address new technological realities while maintaining the sacred goals (*maqasid*) of education: fostering wisdom (*hikmah*), virtue (*akhlaq*), and God-consciousness (*taqwa*). Islamic education remains dynamic, responsive, and relevant worldwide thanks to this philosophical renaissance, enabling it to guide humanity through the challenges of the AI age without forgetting its transcendent goals.

Table 3

The consequences, influencing variables, and forms of AI issues in education from an Islamic epistemological standpoint

Forms of Phenomenon	Influencing Factors	Transformative Implications
Dehumanization of learning	Technological determinism	Re-centering human agency in teaching and learning
Algorithmic bias & reductionism	Globalization of standardized AI tools	Ethical AI integration based on '*adl* and *amanah*
Erosion of moral authority	Weak ethical frameworks in AI ethics	Reaffirming the teacher as moral-spiritual guide

Source: conceptual synthesis

Discussion

The findings show that the central challenge of artificial intelligence in Islamic education is epistemological rather than merely technological because AI reshapes knowledge, judgment, authority, and educational purpose (Bearman & Ajjawi, 2023b; Mouta et al., 2024a). This challenge becomes visible when automation and data-driven systems reduce the relational and formative dimensions of learning (Vučković & Sikimić, 2025b). In Islamic education, this issue is especially important because knowledge is expected to cultivate hikmah, adab, moral responsibility, and spiritual awareness (Ali et al., 2025). The results identify four interconnected manifestations: dehumanization of learning, algorithmic bias and reductionism, erosion of teachers' moral authority, and fragmentation of knowledge. Dehumanization weakens teacher–student interaction, while reductionism turns knowledge into measurable outputs rather than a path toward '*ilm* and *hikmah*. These patterns also weaken teachers' moral roles and disconnect knowledge from wider ethical and spiritual purposes (Raimi, 2024a). Therefore, AI should remain an educational instrument critically guided by '*aql*, *wahy*, ethics, and human responsibility.

These epistemological problems arise because AI is often introduced through technological determinism, efficiency-oriented practices, data-driven decision-making, globalization, and weak ethical reflection (Fawns, 2022; Nguyen et al., 2023a). Technological determinism encourages institutions to treat AI as an inevitable solution, while efficiency and scalability privilege automation and measurable performance over less quantifiable dimensions of learning (Ahmed, 2022; Kahn et al.,

2025; Wang et al., 2023). Global platforms may also carry standardized assumptions that do not automatically align with the ethical and spiritual foundations of Islamic education (Mouta et al., 2024b; Nguyen et al., 2023b). The results show that dependence on technological systems can weaken human judgment and the formative role of teachers (Chu & Wang, 2025). Data-driven decision-making may also encourage algorithmic outputs to be treated as objective, although they require verification through *'aql*, *wahy*, and ethical reasoning (Villeneuve & Bouchamma, 2023). The problem deepens when technological implementation precedes ethical reflection and knowledge becomes fragmented into isolated information units (Kang, 2024; Nieminen & Ketonen, 2024). Thus, the real problem is not technological innovation itself, but AI adoption without sufficient balance between efficiency, human agency, and ethical purpose.

The consequences of these conditions are transformative because they affect educational authority, human agency, and the purpose of knowledge in AI-mediated learning (Fu & Weng, 2024). When technological efficiency becomes dominant, teachers risk being reduced from moral-intellectual guides to facilitators of digital systems, while learners become increasingly dependent on algorithmic outputs (Chan & Tsi, 2024; Darvishi et al., 2024b). This is particularly significant in Islamic education, where the *mu'allim* is expected to guide both intellect and character rather than merely transmit information (Yusgiantara, 2026). The results therefore emphasize re-centering human agency and preserving teachers' roles in moral reasoning and spiritual formation. Ethical AI integration should also be guided by *'adl*, *amanah*, and *tawazun* to protect human dignity and holistic development. Moreover, fragmentation of knowledge requires restoring *wahdat al-'ilm*, which connects intellectual, moral, and spiritual development (Dai, 2025; Darvishi et al., 2024a). Therefore, uncritical AI adoption may weaken education as a relational, moral, and transformative process directed toward the development of the whole human person.

At a deeper level, the findings suggest that the key issue is not whether AI should be accepted or rejected, but how it should remain subordinate to a coherent understanding of knowledge, humanity, and educational purpose (Kubaisi & Hamdan, 2024). AI can support rational inquiry and information processing, yet it cannot independently determine the moral meaning or ultimate purpose of knowledge (Mat Yusoff et al., 2026). This distinction becomes clearer when Al-Ghazali's emphasis on spiritual refinement is read alongside Ibn Rushd's commitment to rational inquiry, since both perspectives offer complementary correctives to technological reductionism. The results stress that knowledge should connect *'ilm, hikmah, adab, 'aql*, and spiritual responsibility rather than be fragmented into ethically detached information. AI should therefore function as an aid, not a replacement for moral and spiritual guidance. Re-engaging classical Islamic epistemology means placing technology within *maqasid*, human flourishing, and spiritual awareness (Ghaly, 2024). The essential lesson is that educational progress should be judged by whether AI strengthens reason, character, responsibility, and meaningful knowledge.

These findings support and extend previous research by confirming concerns about dehumanization, algorithmic bias, changing teacher roles, and the ethical limits of AI while giving these concerns an Islamic epistemological interpretation (Alfredo et al., 2024; Rakap, 2024). Previous studies similarly show that educational AI cannot be treated as value-neutral because algorithms influence interaction, judgment,

personalization, and epistemic authority (Idowu, 2024). However, broader AI-ethics literature often emphasizes fairness, accountability, transparency, and human oversight, whereas this study connects these concerns with reason, revelation, ethics, spirituality, and educational purpose (Aler Tubella et al., 2023). The findings agree with Bearman et al. (2023b) and Mouta et al. (2024a) that AI can alter educational relationships and intensify ethical challenges. They also align with Vučković and Sikimić (2025b) on the ethical and epistemic dimensions of AI but extend them through *'aql, wahy, 'adl,* and *amanah*. The distinctive contribution lies in synthesizing Al-Ghazali's ethical-spiritual orientation and Ibn Rushd's rational-demonstrative orientation within one complementary framework (Fogal & Risberg, 2025). Thus, the study moves beyond responsible AI governance toward an integrative conception of knowledge, ethics, spirituality, and human formation.

These findings require the proposed integrative epistemology to be translated into curriculum, pedagogy, institutional policy, and future empirical research rather than remaining only a philosophical framework (Daher, 2025; Wiese et al., 2025). Conceptually, AI-related learning should combine digital competence with adab, hikmah, critical use of *'aql*, and ethical orientation through *wahy*, because technical capability without normative direction can reinforce reductionism and fragmented knowledge (Ma et al., 2025; Tagare et al., 2025). Methodologically, future studies should test this framework through classroom research, curriculum implementation, and teacher and student perspectives because the present study is conceptual and hermeneutic (Aldemir et al., 2025; Zhai, 2025). At the curriculum level, ethical-spiritual competencies should accompany digital literacy by embedding adab and hikmah in AI-related learning. Pedagogically, reflective, dialogical, and value-oriented learning should preserve the formative role of teachers and human interaction (Tagare et al., 2025). Institutionally, AI policies should emphasize transparency, accountability, human judgment, and alignment with Islamic moral principles (Ma et al., 2025). Therefore, AI should strengthen intellectual inquiry without displacing human agency, moral authority, holistic knowledge, or the ethical-spiritual purposes of Islamic education.

Conclusion

The main problems in AI-driven education that were found in this study are the dehumanization of learning, the fragmentation of knowledge, the erosion of moral authority, and algorithmic bias and reductionism. According to the data, even though AI can increase educational efficiency, accessibility, and information processing, its uncritical acceptance may undermine the ethical, spiritual, and holistic goals of education. In response, the research highlights the necessity for a value-focused epistemological realignment that situates technological advancement inside the bigger framework of human dignity, moral obligation, and holistic human growth.

By creating an integrated epistemological framework that connects wahy (revelation), *'aql* (reason), *qalb* (spiritual consciousness), *'ilm* (knowledge), *hikmah* (wisdom), and *adab/akhlaq* (ethical conduct), this study theoretically contributes to the revival of Islamic educational philosophy. The theoretical basis for placing Islamic epistemology as a relevant resource in modern discussions on ethical AI and human-centered education outside of specifically Islamic educational contexts is provided by the synthesis of Al-Ghazali's spiritual-intuitive approach and Ibn Rushd's rational-

demonstrative approach. The research methodologically illustrates the connection between classical Islamic philosophy and current technological discourse. Integrative epistemology must be operationalized through curriculum design, reflective and dialogical pedagogies, teacher guidance, and institutional frameworks for responsible AI governance in order to translate this theoretical contribution into educational practice.

There are several limitations to this study. Because it relies on classical works and secondary literature rather than empirical field data, its analysis is mostly conceptual and hermeneutic. As a result, the suggested framework cannot be fully evaluated in real-world educational environments. Additionally, the study does not empirically explore how the epistemological tenets it suggests might function in various technological, cultural, and institutional contexts. Therefore, future research should assess and improve the framework through classroom-based studies, curriculum implementation, teacher and student perspectives, and institutional AI-governance practices. In order to broaden the worldwide debate on ethical and human-centered AI in education, comparative research involving additional philosophical and religious epistemologies may also improve the framework's contextual adaptability.

Declaration on AI Usage

Generative AI technologies were employed in the creation of this manuscript to help with language editing, grammatical improvement, translation, restructuring of particular sections, and improvement of academic clarity and coherence. Certain parts of the text were drafted and refined with the help of AI technologies. The authors examined and approved every aspect of the manuscript's intellectual content, interpretation of the literature, analysis, arguments, conclusions, and final judgments. The authors maintain full accountability for the whole manuscript's originality, accuracy, integrity, and scholarly substance. Authors are still accountable for the validity of their research and discoveries, even if they utilize AI tools.

Statement of Contributions by Authors

Conceptualization, methodology, research problem formulation, theoretical framework development, investigation, data analysis, and writing of the original draft were done by the first author. Literature review, data curation, interpretation of pertinent Islamic philosophical sources, writing, reviewing, and editing were done by Author 2. Methodological validation, interpretation of findings, comparative philosophical analysis, and writing, reviewing, and editing were carried out by Author 3. Author 4: Supervision, critical revision of the manuscript, validation of the theoretical framework, and final approval of the manuscript.

All writers contributed to the manuscript's creation, thoroughly examined the finished product, approved the final manuscript, and agreed to be responsible for all facets of the effort, including the accuracy and integrity of the research and its presentation.

Statement of Funding

This research did not receive any grant from any funding organization in the public, commercial, or non-profit sectors. Without any outside financial assistance, the

writers independently carried out the study. This study has no grant number or external funding reference.

Conflict of Interest

The authors state that there are no financial, personal, professional, or other competing interests that may have impacted the study, analysis, interpretation of the results, or creation of this publication. The authors have no conflicts of interest to disclose, and all areas of the study were conducted independently.

Acknowledgments

The authors sincerely thank the larger academic community of STAI Nurul Abror Al-Robbaniyin for its crucial support in establishing a supportive environment for research and scholarly writing, academic materials, and research amenities.

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