

## REIMAGINING ISLAMIC EDUCATION IN THE ERA OF GENERATIVE AI: OPPORTUNITIES, ETHICAL RISKS, AND PEDAGOGICAL TRANSFORMATION

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### ABSTRAK

Seiring transformasi digital yang terus membentuk kembali paradigma pendidikan global, kemunculan pesat kecerdasan buatan generatif menghadirkan implikasi mendalam bagi sistem pembelajaran yang berlandaskan budaya dan agama. Dalam pendidikan Islam, pergeseran teknologi ini menawarkan peluang yang belum pernah terjadi sebelumnya untuk pembelajaran yang terukur dan personal, serta kurasi Turath (warisan Islam) yang canggih. Namun, mengintegrasikan sistem otomatis yang kurang transparan ini ke dalam pedagogi keagamaan menimbulkan risiko kritis. Pada saat yang sama, AI mempercepat pengambilan pengetahuan. Namun, secara bersamaan juga mengancam integritas epistemologis melalui proliferasi ketidakakuratan semantik, yurisprudensi yang “terhalusinasi”, serta overreliance yang mengikis otoritas keilmuan tradisional (sanad) dan tanggung jawab moral manusia (taklif). Wacana saat ini tentang AI dalam pendidikan sering menekankan implementasi sekuler dan teknis, yang menunjukkan keterbatasan ketika diterapkan pada domain yang bernuansa budaya, di mana model bahasa tujuan umum secara sistematis gagal memahami maqāṣid (tujuan yang lebih tinggi) dari teks-teks suci. Dengan membahas persimpangan ini, penelitian ini secara kritis mengkaji peluang pedagogis dan kerentanan etis dari penerapan AI generatif dalam lingkungan pembelajaran Islam, serta mengusulkan pendekatan pedagogis transformatif yang mensintesis inovasi teknologi dengan prinsip-prinsip etika Islam yang ketat. Berlandaskan metodologi analitis dan berbasis pendekatan yang mengacu pada evaluasi empiris dan tekstual terkini tentang kinerja AI, analisis ini mengevaluasi strategi penerapan AI saat ini terhadap kebutuhan akan landasan terstruktur dalam epistemologi Islam yang terverifikasi. Pada akhirnya, makalah ini menjembatani kesenjangan yang semakin lebar antara praktik pendidikan modern yang digerakkan oleh AI dan nilai-nilai pedagogis Islam tradisional (ta'dīb), dengan menawarkan cetak biru yang seimbang dan berpusat pada manusia untuk memastikan transformasi digital yang berkelanjutan dan selaras dengan nilai-nilai dalam pendidikan agama.

**Kata Kunci:** (AI Generatif, Pendidikan Islam, Pedagogi Digital, Integritas Epistemologis, Transformasi Pendidikan)

### ABSTRACT

*As digital transformation continues to reshape global educational paradigms, the rapid emergence of generative artificial intelligence presents profound implications for culturally and religiously grounded learning systems. Within Islamic education, this technological shift offers unprecedented avenues for scalable, personalized learning and the sophisticated curation of the Turath (Islamic heritage). However, integrating these opaque automated systems into religious pedagogy raises critical risks. At the same time, AI accelerates knowledge retrieval. It simultaneously threatens epistemological integrity through the proliferation of semantic inaccuracies, “hallucinated” jurisprudence, and overreliance that erodes traditional scholarly authority (sanad) and human moral agency (taklīf). Current discourses on educational AI frequently emphasize secular, technical implementations, exposing limitations when applied to culturally nuanced domains where general-purpose language models systematically fail to grasp the deeper maqāṣid (higher objectives) of sacred texts. Addressing this intersection, the research critically examines the pedagogical opportunities and ethical vulnerabilities of deploying generative AI within Islamic learning environments, proposing a transformative pedagogical approach that synthesizes technological innovation with rigorous Islamic ethical principles. Grounded in an analytical and approach-based methodology drawing on recent empirical and textual evaluations of AI performance, the analysis evaluates current AI deployment strategies against the strict necessity for structured grounding in verified Islamic epistemology. Ultimately, the paper bridges the widening gap between modern AI-driven educational practices and traditional Islamic pedagogical values (ta'dīb), offering a balanced, human-centered blueprint that ensures sustainable, value-aligned digital transformation in religious education.*

**Keywords:** *Generative AI, Islamic Education, Digital Pedagogy, Epistemological Integrity, Educational Transformation*

### INTRODUCTION

The rapid progress in generative artificial intelligence (AI) is profoundly transforming the landscape of modern education, changing the ways knowledge is accessed, created and shared. The recent advancements in large language models have allowed systems to produce human-like responses, deliver real-time explanations, and create interactive simulations of educational experiences at a scale never before experienced. In turn, educational systems around the globe are rapidly incorporating AI-driven technologies to improve the personalisation, efficiency and accessibility of teaching and learning processes (Kasneci et al., 2023; Zawacki-Richter et al., 2023). While these advancements mark a clear trend

towards more personalised and technologically enhanced learning, they also pose important questions regarding the nature, authority and quality of knowledge.

These are especially evident in the context of Islamic education, where knowledge is more than informational; it is steeped in epistemological, ethical, and spiritual frameworks. Historically, Islamic education is based on established procedures of knowledge transmission (سند), ethical training (تأديب) and interpretive reasoning in light of the higher purposes of Islamic jurisprudence (مقاصد الشريعة). Knowledge is thus verified not only in terms of its content but also its source, mode of transmission, and ethical and theological compatibility. As such, generative AI's incorporation into Islamic education presents a complex interplay between technologically driven and traditionally authenticated knowledge.

Theoretically, integrating AI into Islamic education should improve access to التراث (Islamic intellectual heritage) without compromising the integrity of knowledge or moral responsibility. Generative AI can help to democratise access to classical texts, enable multilingual interactions, and tailor learning experiences. But this vision is only partially fulfilled. Generative AI models are based on language modeling, which means that they produce content based on the statistical likelihood of a given pattern, rather than the verifiable transmission of knowledge. This can lead to systems generating text that is linguistically plausible but epistemologically flawed. This includes the production of "hallucinated" interpretations of religious texts, isolated judgements, and naively oversimplified representations of complex theological ideas (Ji et al., 2023).

The challenges of generative AI are not technical but epistemological. While Islamic scholarship is grounded in robust processes of verification and interpretation within a specific context, AI tools do not inherently include models of legitimacy. This could undermine the authority of scholars and the human responsibility (تكليف) in learning. An excessive reliance on AI content may result in a shift away from accuracy towards speed, which may compromise critical thinking skills and the authority of qualified scholars as knowledge-keepers. These trends threaten to disrupt the continuity of Islamic thought and leadership, and compromise educational ethics.

The current literature on AI in education has predominantly emphasised its pedagogical advantages, such as enhanced engagement, personalised learning, and accessibility (Holmes et al., 2022; Kasneci et al., 2023). These are important contributions, but they are largely situated within a technologically focused and secular framework that fails to consider the complexities of the knowledge and ethics of religious education. Even research on AI ethics tends to provide a broad-level analysis that focuses on principles like transparency, fairness and accountability without considering the knowledge systems in place (Zawacki-Richter et al., 2023). This leaves a gap in the research on the relationship between generative AI and Islamic epistemology and pedagogical philosophy.

This gap points to a need for more sophisticated, contextualised approaches to incorporating AI in Islamic education. Rather than viewing AI as a neutral technology, it is important to consider how the logic of AI fits with the broader principles of knowledge formation and transfer. In particular, ideas like *تأديب*, which is oriented towards ethical and intellectual formation, and *مقاصد الشريعة*, which offers a purposive framework for interpretation, are useful frameworks to assess the integration of AI in education. These approaches imply that learning involves not just the transfer of knowledge but also the disciplining of ethical awareness.

In this context, the current research aims to explore the pedagogical potential, ethical challenges and epistemological consequences of generative AI in Islamic education. It seeks to complement descriptive accounts of AI adaptation by exploring the underlying tensions between technological and religious knowledge systems. In doing so, the study suggests a human-centered pedagogical model that embeds AI technologies within the framework of Islamic epistemology, rather than elevating them to an autonomous status.

This study has three aims. First, it seeks to examine the educational opportunities of generative AI for making Islamic knowledge accessible and engaging. Second, it aims to explore the potential ethical and epistemological dangers of its application, especially regarding the authenticity of knowledge and authority of scholarship. Third, it offers a conceptual framework to integrate AI with the principles of Islamic education, such as *سند*, *تأديب*, and *مقاصد الشريعة*. In so doing, this study contributes to a growing interdisciplinary conversation by

integrating AI ethics and Islamic epistemology and providing a culturally sensitive view of digital transformation in religious education.

This study has important academic, practical and policy implications. Academically, it fills a gap in the academic landscape by incorporating Islamic epistemological views into AI in education. And from a practical standpoint, it offers a guide for educators to safely integrate AI into the teaching and learning processes, while preserving the integrity of epistemology. Policymaking-wise, it emphasises the need for context-specific policies to guide the ethical and effective integration of AI in religious education.

Adopting the Create a Research Space (CARS) approach, this study begins by discussing the significance of generative AI in today's education, followed by a gap analysis regarding the use of generative AI in Islamic epistemologies, and finally, an occupation of the space through a human-centered and ethically driven framework for integrating AI. The rest of the paper is organised as follows: the next section offers a description of the research methodology, the following section discusses the main findings of the study and the final section presents the implications for theory, practice and future research.

## **METHOD**

This research has employed an analytical, conceptual, and qualitative research design based on recent empirical and textual assessments of generative artificial intelligence (AI) in education. This was deemed suitable due to the explorative and interpretive nature of the research, which aimed to explore the integration of technological systems and Islamic epistemology rather than assess variables. Current research on AI in education highlights the importance of adopting qualitative and conceptual approaches to complex ethical, knowledge creation and pedagogic change issues (Kasneji et al., 2023; Zawacki-Richter et al., 2023).

This research was carried out from January 2024 to February 2026, and did not take place in a single location. Rather, it used globally accessible academic publications, AI-generated text and digital Islamic texts. This enabled a holistic and situated approach to the study of generative AI in various educational and

knowledge settings. The use of the conceptual analytical framework was justified by the need to critique the alignment and contradiction between AI-generated knowledge and Islamic principles like *سند*, *تأديب*, and *مقاصد الشريعة*.

The data sources were three types of textual data:

- (1) academic peer-reviewed publications on generative AI and education from 2021-2026,
- (2) AI responses to Islamic educational and jurisprudential questions, and
- (3) traditional and modern Islamic scholarly works on epistemology and pedagogy.

We used a purposive sampling method for relevance and scope. Scholarly articles were selected if they addressed generative AI, AI ethics, or online pedagogy within the timeframe. This is reflective of the dynamic nature of AI research, where recent studies have the greatest relevance in terms of system capabilities and limitations (Holmes et al., 2022; Ji et al., 2023).

Generative AI systems were prompted to generate text on topics such as *سند*, *مقاصد الشريعة*, and *تأديب*, enabling the assessment of interaction with epistemologically sensitive Islamic concepts. Classical texts were chosen for their authoritative status and their relevance to key Islamic epistemological concepts. Unacademic sources or those not relevant to the study were removed.

Various online and analytical tools were employed to gather and assess information. Large language model (LLM) powered generative AI tools were employed to generate and evaluate Islamic educational content. Research databases such as Scopus, Web of Science and Google Scholar were searched for peer-reviewed articles.

Qualitative analysis software was also used to help with data coding and classification. Analytical frameworks derived from recent studies in AI ethics and educational technology were used to assess the AI tools (Kasneci et al., 2023; Holmes et al., 2022). They were chosen for their methodological rigour and their applicability in interdisciplinary studies that blend technological and textual analysis techniques.

Our study adopted a step-by-step approach. Initially, we carried out a systematic literature search using terms like "generative AI", "Islamic education", "AI ethics" and "digital pedagogy" from 2021 to 2026. The studies were reviewed

using inclusion and exclusion criteria. Second, a set of prompts were crafted to elicit AI responses on various aspects of Islamic education. These were recorded and classified according to their coherence, veracity and conformance to Islamic principles of knowledge. Third, an analytical assessment phase was undertaken, where AI-generated answers were compared with traditional Islamic standards, including those of *سند* and *مقاصد الشريعة*. This phase allowed for the identification of gaps, challenges, and potential areas of convergence between AI knowledge and Islamic scholarly norms.

This analytical phase was guided by recent assessment frameworks in AI studies, especially those that explore the trustworthiness and shortcomings of generative systems (Ji et al., 2023).

Three main outcomes were targeted for analysis: epistemological integrity, ethical risk detection, and pedagogic potential. Epistemological integrity measured the degree to which generative AI outputs complied with principles of knowledge validation and dissemination. Ethical risk identification focused on the identification of risks such as misinformation, hallucinated interpretations and undermining of scholarly authority. Educational relevance referred to the value of generative AI in facilitating ethical and informative learning outcomes in Islamic education. These results were chosen because they represent the primary goals of the research and reflect the complexity of incorporating AI into religious teaching and learning.

The analysis of data employed a mix of thematic analysis, critical interpretive analysis and comparative epistemological analysis. Thematic analysis allowed for the identification of underlying themes in literature and AI-generated content, and critical interpretive analysis focused on knowledge and authority construction within texts.

Comparative epistemological evaluation involved comparing AI-generated texts against known Islamic epistemological principles to identify congruence and incongruence. This complex analytical framework was informed by recent research in methods for AI and education (Zawacki-Richter et al., 2023; Kasneci et al., 2023).

These approaches offered a comprehensive and contextualised approach to examining the benefits, challenges and implications of generative AI in Islamic education.

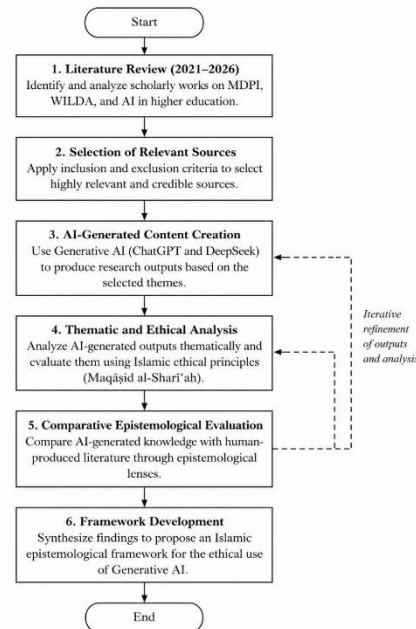


Figure 1. The overall research workflow of the study

## DISCUSSION

This study's results show that the relationship between generative artificial intelligence (AI) and Islamic education is multifaceted, with pedagogical benefits, ethical dilemmas and epistemological concerns intertwined. This study finds that while generative AI holds considerable promise in improving accessibility and efficiency in learning, its use in Islamic education raises important questions about the authenticity, authority, and responsibility of knowledge.

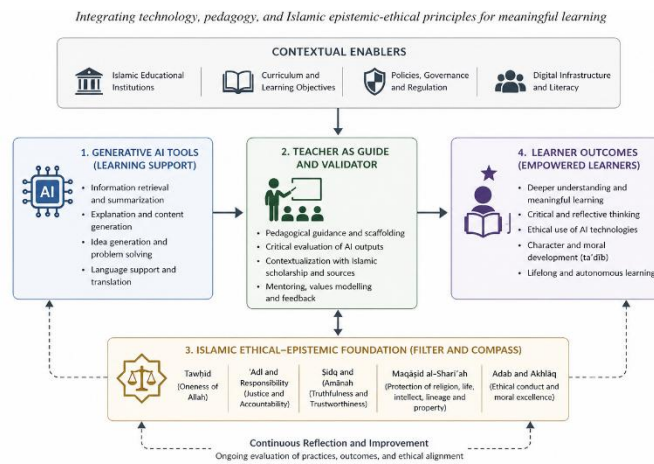
The pedagogic findings suggest that learning with generative AI can be enhanced through personalised teaching, simplification of concepts and access to Islamic intellectual heritage (التراث). This is in line with recent studies that point to the ability of AI to support student-centered learning environments (Kasneji et al., 2023; Zawacki-Richter et al., 2023). Yet, the current study builds on this research by demonstrating that this is contingent on religious teaching. Without guidance, AI has the potential to promote a superficial approach to learning. This is especially

crucial in Islamic education, where learning is in turn a process of moral cultivation and training (تأديب).

**Table 1. Pedagogical, Ethical, and Epistemological Dimensions of Generative AI in Islamic Education**

Dimension	Key Findings	Islamic Principle	Risks Identified	Implications for Practice
<b>Pedagogical Opportunities</b>	Enhances access to التراث, supports personalized learning, and simplifies complex concepts	—	Superficial engagement; reduced depth of understanding	Use AI as a supportive tool with guided instruction
<b>Ethical Risks</b>	Produces plausible but potentially inaccurate religious interpretations	تكليف (moral responsibility)	Misinformation; hallucinated rulings; overreliance	Ensure teacher validation and promote AI literacy
<b>Epistemological Implications</b>	Lacks سند and struggles with contextual reasoning aligned with مقاصد الشريعة	تأديب, مقاصد الشريعة	Erosion of scholarly authority; fragmentation of knowledge authenticity	Reinforce scholarly oversight and epistemic verification
<b>Role of Teacher</b>	Acts as validator, interpreter, and guide in AI-supported learning	تأديب	Marginalization if AI is overused	Maintain teacher-centered validation and contextualization
<b>Learner Impact</b>	Increases engagement but may reduce critical thinking if used passively	Ethical formation	Dependency on AI; reduced reflective reasoning	Promote critical and responsible AI use

To articulate these aspects, Table 1 is provided as a synopsis of the main findings, and the proposed conceptual framework in Figure 1 diagrams the potential role of generative AI within a human-centred approach to teaching. Figure 1 illustrates how AI is a supportive agent within a system encompassing teacher, ethical filtering, and learner empowerment. This multi-layered approach underlines the principle that tools should function within a pre-existing epistemological framework.



**Figure 2. Human-Centered AI Pedagogical Framework in Islamic Education**

The teacher plays a pivotal role in AI utilisation. Contrary to perspectives that see the teacher as expendable, the study proposes a shift in their role as epistemic authorities for validation and contextualisation. This echoes the idea of *سند*, with emphasis on the transfer of reliable knowledge through an intellectual chain. Contrary to popular narratives which suggest AI can replace the role of teachers, the study shows that the absence of the teacher in the learning process jeopardises epistemic integrity. This is reflected in Figure 2 by the role of the teacher as a crucial intermediary.

Ethically, the research highlights the dangers posed by generative AI in producing misleading but credible religious interpretations. This parallels concerns about AI hallucinations in natural language generation (Ji et al., 2023). But it has a greater impact in Islamic education, where errors can affect belief, practice and jurisprudence. This raises issues related to the notion of *تكليف* (moral responsibility). Excessive dependence on AI systems can create a shift in responsibility away from critical thinking and the learner's contribution to verification processes.

On the level of epistemology, the research emphasises a clash between generative AI and Islamic knowledge. AI is based on probabilistic pattern matching, while Islamic epistemology relies on verification, intentionality, and purposive reasoning guided by *مقاصد الشريعة*. This is why, while AI can generate meaningful and coherent interpretations, it fails to understand complex and contextual interpretations. The notion of *تأديب* also underlines that education is not just about imparting knowledge but also about moral training. This conclusion implies that an independent epistemic authority in Islamic education cannot be built on AI.

This study has theoretical and practical implications. At the theoretical level, it adds to the growing interdisciplinary conversation on the integration of Islamic epistemology and modern AI ethics, questioning the universality of current AI approaches. Pragmatically, it validates a hybrid framework for education, as depicted in Figure 1, where AI is introduced into the learning process while human leadership is maintained. Policy-wise, the study highlights the importance of culturally responsive policies that ensure AI technologies align with religious and epistemic frameworks.

The study's limitations include: The study's qualitative and conceptual approach makes it difficult to empirically validate and the AI design was limited to a subset of scenarios. Furthermore, the study on general-purpose AI systems may not reflect the potential of new domain-specific AI models for religious education. Future studies should therefore prioritize empirical research, especially classroom-based studies, and the development of AI systems that feature mechanisms in line with

In summary, the use of generative AI in Islamic education offers both opportunities and challenges. As shown in Figure 1, the integration of AI demands a human-centred approach that balances epistemological integrity and technological advancement in a delicate balance. The key to the future of Islamic education in the AI age will lie in harmonising these two aspects in a meaningful and ethical way.

## CONCLUSION

This study critically examined the integration of generative artificial intelligence (AI) within Islamic education, focusing on its pedagogical potential, ethical risks, and epistemological implications. While generative AI offers clear advantages in enhancing accessibility, personalization, and learner engagement, the findings reveal a fundamental tension between probabilistic knowledge generation and the principles of Islamic epistemology, particularly *سند*, *تأديب*, and *مقاصد الشريعة*. The study demonstrates that generative AI cannot function as an autonomous epistemic authority due to its lack of mechanisms for validation, contextual interpretation, and moral accountability. Instead, its effective use depends on a human-centered pedagogical approach in which educators retain a central role in guiding, validating, and contextualizing knowledge. This reinforces the necessity of aligning technological innovation with established epistemological and ethical frameworks.

Theoretically, the study contributes by integrating Islamic epistemology into contemporary AI discourse, challenging the assumed universality of existing AI frameworks. Practically, it underscores the need for structured, context-sensitive integration strategies. Future research should focus on empirical validation and the development of AI systems that incorporate epistemic verification aligned with Islamic principles.

In sum, the sustainable integration of AI in Islamic education requires a careful balance between innovation and epistemological integrity.

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