

Reconstructing Epistemic Authority: A Post-Human Pedagogical Framework for Artificial Intelligence in Islamic Education

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Abstract

The rapid entry of generative artificial intelligence into Islamic education raises a question that is epistemological before it is technical. As students increasingly turn to algorithmic systems to interpret texts and compose arguments, the authority over knowledge that has traditionally passed through morally formed scholars begins to shift toward systems that possess neither intention nor moral standing. This study reconstructs the epistemological relationship between artificial intelligence and the classical Islamic system of knowledge, and specifies a post-human pedagogical framework that integrates the human, the technological, and the theological without collapsing the hierarchy among them. Employing library research and conceptual analysis, the study draws its corpus through a PRISMA-guided search of Scopus and examines it through qualitative content analysis, reading the wider literature against the foundational work of al-Attas. The analysis reconstructs AI as an epistemic mediator rather than a neutral instrument, traces the structural tension between computational and revelatory logics, and shows how this tension is expressed differently across *pesantren*, *madrasah*, and Islamic higher education. The resulting framework subordinate's algorithmic mediation to a descending hierarchy anchored in *nahy* (divine revelation), granting AI genuine epistemic participation while denying it epistemic authority, and culminating in the formation of *adab* (moral and intellectual virtue). The study contributes a constructive framework where existing scholarship has largely offered diagnosis, and extends transformative learning theory toward a post-human account. As a conceptual proposition, the framework awaits empirical testing in classrooms.

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INTRODUCTION

Across Indonesia, the largest Muslim-majority society in the world, students in *pesantren*, *madrasah*, and Islamic universities increasingly turn first to artificial intelligence when they seek to understand a text, settle a question, or compose an argument. Empirical work already documents how readily learners lean on these systems even for examination answers, and how that reliance outpaces their capacity to judge what the systems return (Adiyono, 2025), while studies of acceptance show AI moving quickly into the heart of Islamic religious instruction itself (Faizin, 2025; Wedi, 2025). What presents itself on the surface as a question of educational technology is, on closer inspection, a question about knowledge: about who is entitled to mediate it, on what grounds it is held to be valid, and what becomes of a tradition whose authority has always passed through morally formed human beings when that mediation is increasingly performed by systems that possess no moral standing at all.

Islamic education has, of course, confronted the pressures of modernity before, and the scholarly record of its responses is substantial. A large body of work has examined the academic reform of Islamic higher education in Indonesia (Suyadi, 2022), the modernisation of Islamic schooling in the world's most populous Muslim nation (Zaini, 2022), the holistic and integrative models developed within movements such as Muhammadiyah (Hamami, 2022), and the dynamic transformation of the *pesantren* as it negotiates its classical roots against modern demands (Sofi, 2025). These literatures are valuable, yet they run largely in parallel lanes: reform of institutions, integration of curricula, modernisation of pedagogy. None was written to address an actor that does not merely change how knowledge is delivered but participates in producing it, and so the arrival of generative AI finds the existing scholarship organised around questions that no longer exhaust the problem.

A second and more recent body of work has begun to address AI in Islamic settings directly, and it is here that the conceptual stakes come into view. Studies have examined the ethics and limits of AI in Qur'anic exegesis (Azhar, 2025), the epistemological standing of AI-generated religious guidance (Lala, 2025), and the philosophical friction between Islamic and computational accounts of knowledge (Popova, 2020), while broader scholarship on AI and religious authority shows how automated systems unsettle the human guardianship of meaning (Cheong, 2021). This work is indispensable, but it remains largely diagnostic, naming the tension without yet supplying a constructive framework through which Islamic education might respond while keeping its epistemological commitments intact.

The deeper issue surfaces only when the question is set within the long debate over the relationship between revealed and acquired knowledge, a debate that AI does not create but sharpens. On one side stands the tradition of Islamisation, descending from al-Attas's insistence that knowledge be ordered according to metaphysical principle (Arroisi, 2023; Kosim, 2020); on another, a growing turn toward the integration of knowledge (*al-takāmul al-ma'rifī*), which treats revealed and modern knowledge as partners rather than as one absorbing the other (Laabdi, 2024); and against both, a sceptical voice that questions whether any such project can move beyond aspiration into institutional practice (Paya, 2023). The integration of science and religion remains a live and unsettled problem in Indonesian and Malaysian Islamic education (Hadi, 2024), and critical epistemological analyses continue to expose the unresolved assumptions beneath its pedagogy (Asnawi, 2025). Into this debate AI enters not as a neutral tool but as a new epistemic actor whose computational logic fits neatly on neither side, and the existing positions have not yet been extended to accommodate it.

The gap, then, is precise. The concept of a knowledge order that grants technology a role without surrendering authority to it has not been reconstructed for the age of generative AI; the diagnostic literature has named the tension, the reform literature has not anticipated the actor, and the Islamisation and integration debates have not been extended to a non-human participant. This study addresses that gap by reconstructing a post-human pedagogical framework for Islamic education, one that draws on the resources of posthumanist thought in education while refusing its dissolution of hierarchy, and that positions AI within a descending epistemic order anchored in revelation rather than above or beside it. The novelty lies neither in praising AI nor in resisting it, but in specifying the precise conditions under which a revelation-centred tradition can grant the algorithm genuine epistemic participation while denying it epistemic authority.

The objective of this study is therefore threefold: to reconstruct, through library research and conceptual analysis, the epistemological relationship between artificial intelligence and the classical Islamic system of knowledge; to specify a post-human pedagogical framework that integrates the human, the technological, and the theological without collapsing the hierarchy among them; and to position that framework within the contemporary debates on AI ethics, posthumanism, and the integration of knowledge. Its significance is both theoretical and practical. Theoretically, it offers Islamic educational thought a constructive framework where the existing literature has largely offered diagnosis, and it extends transformative learning theory toward a post-

human account in which critical formation encompasses the human learner and the technological mediator together. Practically, it directs the attention of *pesantren*, *madrasah*, and Islamic universities away from the question of whether to adopt AI and toward the more consequential question of the moral and epistemic conditions under which its adoption leaves the formation of *adab* intact.

RESEARCH METHOD

This study employs library research conducted within a qualitative paradigm. The choice is dictated by the nature of the object under investigation. What this study examines is not a measurable behavior or an observable field event, but a body of ideas: the epistemological relationship between artificial intelligence and the classical Islamic system of knowledge, and the conditions under which a post-human pedagogical framework might be reconstructed without dissolving the hierarchy of revelation. Such an object cannot be approached through instruments designed to capture empirical regularities; it calls instead for the systematic reading, interpretation, and synthesis of scholarly texts. The conceptual writings of Syed Muhammad Naquib al-Attas, particularly his articulation of knowledge as an ordered, metaphysically grounded reality oriented toward the formation of *adab*, serve as the primary source against which the wider literature is read (al-Attas, 1993).

To make the selection of sources systematic and traceable rather than impressionistic, the study adapts the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol to the requirements of a conceptual review (Page et al., 2021). Scopus was selected as the primary database, accessed through the Publish or Perish application, because it offers curated, peer-reviewed coverage with reliable metadata, which allows the search to be documented and reproduced. The search combined thematic keyword sets reflecting the study's conceptual axes: the intersection of artificial intelligence and Islamic epistemology; epistemic authority and algorithmic mediation; artificial intelligence in Islamic education; AI and religious or exegetical authority; and posthumanism in education. Both full-metadata and title-restricted searches were run for each axis to balance breadth at identification against precision for the core literature. The search window was set to 2018 through 2026 to capture the recent surge of scholarship on generative AI, while al-Attas's foundational work was retained as a primary source outside that window on account of its classical status.

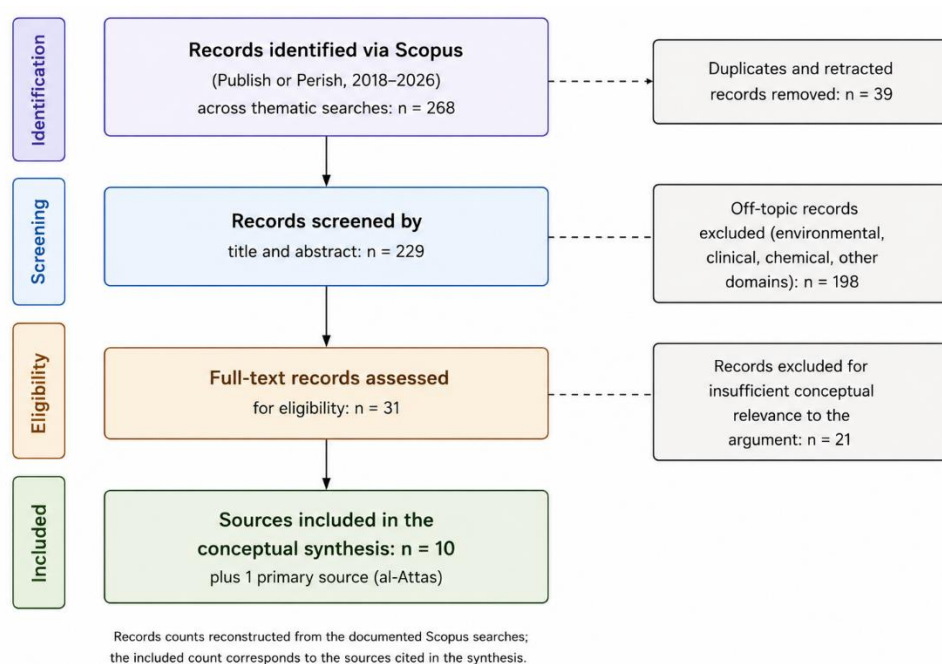


Figure 1. PRISMA flow

Source: Authors' elaboration, based on the documented Scopus search conducted through Publish or Perish.

Records moved through four stages: identification, screening, eligibility, and inclusion, as set out in **Figure 1**. At identification, all records returned by the thematic searches were aggregated. Duplicate records returned by more than one query, together with any retracted items, were removed. At screening, titles and abstracts were examined, and a large number of records were excluded as off-topic: searches built on broad terms such as "posthuman pedagogy" or "AI ethics" returned substantial bodies of work in environmental education, the Anthropocene, clinical medicine, and analytical chemistry that bore no relation to the epistemological question at hand. At the eligibility stage, the remaining full texts were assessed for their direct contribution to the conceptual argument, namely whether they addressed epistemic authority, the mediation of knowledge, Islamic epistemology, or post-human educational frameworks in a manner usable for reconstruction. The records satisfying these criteria, together with the retained primary source, constitute the included corpus.

The included corpus was examined through qualitative content analysis. The procedure followed the inductive tradition of qualitative content analysis, in which coding moves from close reading toward progressively more abstract categories before culminating in interpretive synthesis (Nicmanis, 2024; Lyhne et al., 2025). The analysis proceeded in four stages, summarized in Table 1. In the first, familiarization, each source was read closely to grasp its argument and its epistemological commitments. In the second, open coding, recurring conceptual units were marked: claims about authority, mediation, hierarchy, ethics, and formation. In the third, categorization, these codes were grouped into the analytical themes that organize the findings, namely the shift of authority, AI as epistemic mediator, institutional variation, epistemological tension, and the post-human framework. In the fourth, theoretical synthesis, the categorized material was read against the primary source to reconstruct an integrated framework rather than merely to summarize the literature. The four analytical phases, with their procedures and outputs, are set out in **Table 1**.

Table 1. Phases of the Analytical Procedure

Phase	Stage	Procedure	Output
1	Familiarization	Close reading of each source for argument and epistemological stance	Annotated corpus
2	Open coding	Marking recurring conceptual units across sources	Initial code set
3	Categorization	Grouping codes into analytical themes	Thematic structure of the findings
4	Theoretical synthesis	Reading themes against the primary source	Reconstructed integrative framework

Source: Authors' elaboration.

Because the study is interpretive, its credibility rests not on replicable measurement but on the disciplines that govern responsible conceptual work, summarized in Table 2. Source triangulation was practiced by reading the primary source against a deliberately diverse corpus drawn from Islamic studies, the philosophy of technology, educational theory, and communication research, so that the argument did not rest on a single strand of scholarship. An audit trail was maintained through the documented search strategy and the PRISMA flow, which allow a reader to retrace how the corpus was assembled and why records were excluded. Interpretive consistency was preserved by returning repeatedly to al-Attas's framework as the analytical anchor, so that the reconstruction remained accountable to a coherent epistemological position rather than drifting across incompatible assumptions. The selection criteria and the measures securing trustworthiness are summarized in **Table 2**.

Three limitations follow from the design and are stated plainly. First, the study is conceptual rather than empirical: it reconstructs and argues, but it does not test its framework in classrooms, and the coherence it achieves is theoretical rather than demonstrated in practice. Second, it relies primarily on a single database, Scopus, which, while curated, does not exhaust the relevant scholarship, particularly work published in Arabic and Indonesian outside Scopus

indexing. Third, because the intersection of artificial intelligence and Islamic epistemology is a genuinely emerging field, the available corpus is thin, and the argument leans on a small number of closely relevant sources together with a single classical primary source. These limitations circumscribe the claims that can be made and mark the openings for the empirical and multilingual research that should follow.

Table 2. Selection Criteria and Trustworthiness Measures

Element	Specification
Inclusion	Sources addressing epistemic authority, knowledge mediation, Islamic epistemology, or post-human educational frameworks
Exclusion	Off-topic records (environmental, clinical, chemical, or unrelated technical domains); duplicates; retracted items
Triangulation	Primary source read against a diverse multidisciplinary corpus
Audit trail	Documented Scopus search strategy and PRISMA flow

Source: Authors' elaboration.

RESULT AND DISCUSSION

Results

The Shift of Epistemic Authority in AI-Mediated Islamic Education

Reading across the corpus reveals that epistemic authority in Islamic education is changing its footing. In the classical Islamic system of knowledge, authority rested on the *ulama*, whose legitimacy drew on textual mastery, an unbroken chain of transmission (*sanad*), and moral integrity, so that knowledge was not only correct in content but also vouched for ethically. As work on religious automation shows, religious traditions have historically kept human authority as the guarantor of meaning, which means that handing interpretive work to an automated system forces a tradition to restate who is entitled to speak in its name (Cheong, 2021). What the recent literature describes is a different pattern: learners increasingly treat AI-based systems as their first stop for obtaining information, building arguments, and drafting academic work, often with a confidence in those outputs that outstrips their ability to judge how reliable they are (Urban, 2025).

This is not merely a change of medium. Once the legitimacy of an answer is gauged by computational efficiency and surface coherence rather than by the soundness of its transmission and the moral standing of the one who voices it, the very criteria for valid knowledge are being rewritten. The arrival of generative AI has opened both an opportunity and a challenge for structures of epistemic authority long anchored in human expertise, because these systems can produce outputs that appear authoritative without resting on any verified scholarly competence (Perreault, 2025). Authority, in other words, is being decentralized, with part of it migrating to a technological system that, by design, possesses neither intention (*qaṣd*), nor moral responsibility, nor spiritual awareness. From the standpoint of Islamic epistemology, this migration reaches the foundations: the hierarchy of knowledge that places revelation (*wahy*) at its summit, followed by reason (*ʿaql*) and transmitted report (*naql*), is unsettled by a new epistemic actor whose validity is not grounded in any theological authenticity.

Artificial Intelligence as an Epistemic Mediator

The second finding establishes that within Islamic education, AI does not function as a passive instrument but as an *epistemic mediator* that helps shape how knowledge is produced, interpreted, and disseminated. AI systems assemble interpretive narratives, mimic dialogical exchange, and generate responses that resemble scholarly argument. Even in the most sensitive domain of all, the interpretation of sacred text, studies of AI use in Qur'anic exegesis show that such systems are already being enlisted to help read and explain verses, which raises the question of their epistemic limits and validity within the framework of Islamic knowledge (Azhar, 2025). A comparable capacity to produce religiously inflected guidance positions AI as a co-producer of meaning rather than a neutral conduit (Lala, 2025).

Yet the logic driving this mediation differs fundamentally from the logic of Islamic knowledge. AI operates through probabilistic reasoning and the recognition of patterns in statistical correlation, whereas Islamic epistemology rests on intentionality, moral responsibility, and metaphysical awareness. Within algorithmic culture, truth is increasingly reconfigured through epistemic regimes that privilege what appears convincing on the strength of synthetic verisimilitude rather than what is normatively verified (Ramos-Zaga, 2025). The consequence is that AI-generated knowledge can look authoritative and consistent while remaining thin on theological accountability and ethical grounding. Here lies the difficulty: in the Islamic tradition, the mediation of knowledge has historically been carried out by scholars who combined intellectual skill with moral virtue, so that when this human mediation is replaced or extended by algorithmic systems, epistemic legitimacy must be redefined to keep technological mediation answerable to theological principle.

Variation in Epistemic Pressure Across Types of Islamic Educational Institutions

The shift in authority and the mediation described above are not distributed evenly; they take different forms according to the epistemic character of each type of Islamic educational institution in Indonesia. It should be stated at the outset that the mapping that follows is an analytical proposition drawn from widely recognized institutional features rather than a field finding, since the available corpus does not yet supply comparative empirical evidence across institutional types. With that qualification, one and the same foundation, the hierarchy of *wahy*, *'aql*, and *naql*, meets distinct pressures when it encounters algorithmic systems.

In the *pesantren*, whose authority rests on the personal relationship between *kiai* and *santri* and on a chain of transmission that is oral and embodied, the pressure of AI is felt most acutely as a threat to the legitimacy of transmission itself. When a *santri* obtains an explanation of a text from an AI system rather than from the *kiai*, what is displaced is not merely a source of information but the chain of validity that has long bound knowledge to a moral and verified authority (Cheong, 2021). In the *madrasah*, which is more curricular and standardized, the pressure shifts toward assessment and academic honesty, since AI outputs slip easily into assignments and examinations carried by a confidence that exceeds the learner's capacity to evaluate them (Urban, 2025). In Islamic higher education, oriented toward research and the production of knowledge, the pressure is most visible in the authority of interpretation and scholarly writing, where generative systems offer themselves as producers of seemingly authoritative argument with no grounding in tested competence (Perreault, 2025).

The differing forms of this epistemic pressure across the three institutional types are summarized in **Table 3**.

Table 3. Variation in AI-Related Epistemic Pressure Across Types of Islamic Educational Institutions		
Institution type	Dominant basis of authority	Most visible point of AI pressure
<i>Pesantren</i>	<i>Kiai–santri</i> relationship, oral <i>sanad</i>	Legitimacy of the chain of transmission
<i>Madrasah</i>	Standardized curriculum	Integrity of assessment and academic honesty
Islamic higher education	Research and scholarly production	Authority of interpretation and academic writing

This differentiation shows that the epistemological reconstruction proposed in this study cannot be applied uniformly; it must remain sensitive to the distinctive structure of authority that characterizes each type of institution.

The Epistemological Tension Between AI Systems and Classical Islamic Knowledge

The analysis brings into view a structural tension between two paradigms of knowledge built on different premises. AI systems rest on computational logic and data-driven inference, whereas Islamic epistemology is rooted in revelation, moral principle, and a hierarchically ordered structure of knowledge. Philosophical debate on Islam and artificial intelligence shows that the issue lies not in the technical capacity of AI but in the epistemological assumptions underlying it,

which are frequently out of step with a framework of knowledge grounded in revelation (Popova, 2020). This tension cannot be eased simply by integrating the technology, because the difference is not merely technical but ontological: AI knowledge is descriptive and probabilistic, while Islamic knowledge is at bottom normative and ethical. Work on the ethics and limits of AI in Qur'anic interpretation reinforces the point, holding that without a clear epistemological framework the involvement of AI risks exceeding an authority that ought to be bounded by the principles of Islamic knowledge (Azhar, 2025). The difference in epistemic structure between the two systems is summarized in **Table 4**, which serves as the basis for the reconstruction in the following section.

Table 4. Comparison of Epistemic Structure Between Classical Islamic Education and AI-Mediated Learning

Dimension	Classical Islamic education	AI-mediated learning
Source of authority	Revelation and scholarly transmission (<i>sanad</i>)	Algorithmic computation
Basis of legitimacy	Ethical and theological	Statistical probability
Knowledge process	Interpretive and contextual	Pattern recognition
Accountability	Moral responsibility (<i>amanah</i>)	External regulation
Ultimate orientation	Formation of <i>adab</i> and wisdom	Provision of information

Source: Authors' elaboration based on the cited literature.

The table makes clear that adopting AI without critical mediation risks producing epistemic disorder, a condition in which the foundations of knowledge are supplanted by computational logic. Within al-Attas's framework, which insists that knowledge must be ordered according to metaphysical principle, an AI that possesses no metaphysical grounding should be placed *within* that hierarchy, not *above* it (al-Attas, 1993).

Toward a Post-Human Pedagogical Framework in Islamic Education

Proceeding from this tension, the study reconstructs a post-human pedagogical framework for Islamic education that brings the human, the technological, and the theological into one arrangement without collapsing the hierarchy among them. The discourse of posthumanism in education does offer a way to rethink the relationship between human and non-human actors in the production of knowledge (Bustillos Morales, 2024), and recent work links critical posthumanism specifically to the ethical questions raised by AI (Chaaban, 2025). Unlike secular posthumanism, however, which tends to dissolve the distinction between the human and the non-human and to distribute agency without a normative center (Pedersen, 2025), the framework proposed here preserves an epistemic hierarchy rooted in revelation. It rests on three interlocking principles, set out in **Table 5**.

Table 5. Principles of a Post-Human Pedagogy in Islamic Education

Principle	Foundation	Pedagogical implication
Revelation-centered ontology	Islamic epistemology (<i>wahy</i> as the highest source of truth)	AI is positioned as a supporting tool, not an autonomous authority
Ethical algorithmic mediation	AI ethics and <i>maqasid</i>	AI use is governed by transparency, accountability, and value alignment
Strengthening human moral agency	The concept of <i>adab</i>	Critical literacy: learners can assess AI outputs within a theological frame

Source: Authors' elaboration based on the cited literature.

To bind these five layers of findings into a single coherent system, the framework is visualized in **Figure 2**. The diagram arranges knowledge as a descending hierarchy: *wahy* sits at the summit as the highest source of truth, binding *'aql* and *naql* beneath it, which in turn frame algorithmic mediation so that it remains subject to the principles of *maqasid*, before flowing into the strengthening of human moral agency and culminating in the formation of *adab*. What the figure asserts is not merely an ordering of components but a proposition: *adab* as the final attainment becomes possible only when the hierarchy is kept intact, so that the moment AI is

placed above revelation or on a par with it, the entire chain of entailment is broken and knowledge declines into mere information.

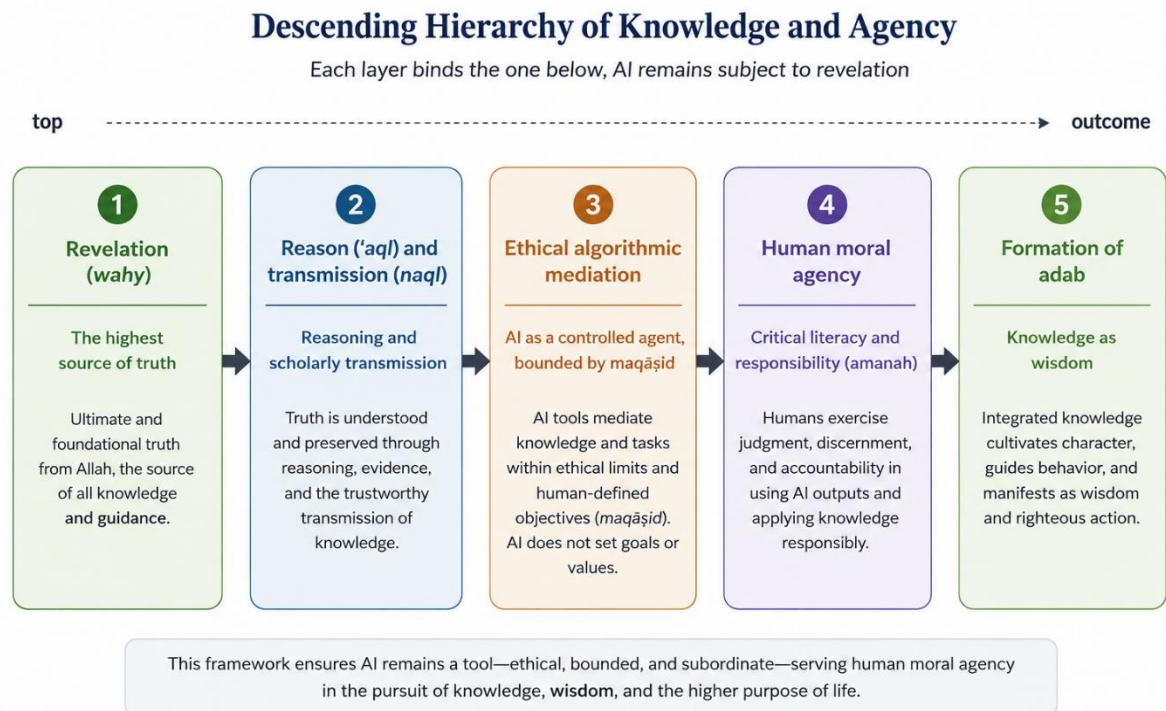


Figure 2. A post-human epistemological model for Islamic education

By way of an honest closing note, this framework is a conceptual reconstruction whose coherence is theoretical; coherence of that kind does not yet guarantee that it can be carried out in an actual classroom, and an empirical test of its application remains work this study has not undertaken. The positioning of this framework within debates on posthumanism and AI ethics, including the voices that contest it, is taken up in the Discussion.

Discussion

The central argument of this study is that the entry of artificial intelligence into Islamic education is not a technical adjustment but an epistemological event, one that unsettles who holds authority over knowledge and on what grounds, and that responding to it requires neither uncritical adoption nor refusal but a reconstruction that keeps revelation at the centre while granting technology a bounded role. The findings reconstructed in the previous section acquire their significance only when set against the wider scholarly conversation, and it is to that positioning that the discussion now turns.

The first issue concerns the gap between conceptual coherence and institutional realisation. The framework reconstructed here is internally consistent, yet consistency on the page does not guarantee uptake in a *pesantren* or a *madrasah*, and it would be dishonest to suggest otherwise. The wider literature on AI ethics in education has converged on principles of transparency, accountability, and human oversight (Nguyen et al., 2023; Holmes et al., 2022), but these principles have proven difficult to translate into institutional practice even in well-resourced universities, and the difficulty is sharper in Islamic educational settings where infrastructure and AI literacy are uneven. What this study adds is the recognition that, for Islamic education, the obstacle is not only practical but epistemic: a principle such as accountability must be re-grounded in *amanah* rather than imported as an external compliance requirement, otherwise it will not bind. The framework therefore offers a direction, not a guarantee, and its realisation depends on conditions this study cannot supply.

The second issue positions the framework within the long debate over the Islamisation versus the integration of knowledge. The reconstruction offered here is recognisably an heir to al-Attas's insistence that knowledge be ordered according to metaphysical principle (Arroisi, 2023; Kosim, 2020), yet contemporary scholarship has increasingly moved from the language of Islamisation (*aslamat al-ma'rifā*) toward that of integration (*al-takāmul al-ma'rifī*), treating the two bodies of knowledge as partners rather than one absorbing the other (Laabdi, 2024). The post-human framework proposed here intervenes in this debate in a specific way: it does not Islamise the algorithm, nor does it integrate AI as an equal partner, but subordinates it, granting it epistemic participation while denying it epistemic authority. This is a third position, and stating it plainly is part of the contribution. It also inherits the debate's unresolved tensions, including the sceptical charge that any such project risks remaining aspirational rather than operational (Paya, 2023), a charge this study does not pretend to have settled.

The third issue concerns what carries the framework, namely the moral agency of the human mediator, and here the sceptical voices must be given their due. To place a human in authority over the algorithm assumes that human authority is itself trustworthy, yet the literature warns that algorithmic systems can entrench epistemic injustice rather than correct it (McInerney, 2025), that the displacement of human judgement by a logic without metaphysical grounding carries a distinct theological danger (Al-Kassimi, 2023), and that expertise and epistemic authority are philosophically harder to assign than any tidy hierarchy suggests (Hauswald, 2025). These cautions do not defeat the framework, but they discipline it: the authority the framework reserves for the human mediator is legitimate only where that mediator possesses the moral formation, the *adab*, that the framework itself identifies as the goal of education. The framework, in other words, presupposes the very formation it aims to produce, and acknowledging this circularity honestly is more useful than concealing it. The practical implication is that the decisive investment is not in technology but in the moral and intellectual preparation of teachers, and the limitation is equally clear: this is a conceptual proposition awaiting the empirical test that conceptual work alone cannot provide.

Beyond its specific intervention in Islamic epistemology, this study contributes to the broader field of education and learning, and most pointedly to the theory of transformative education. For education and learning generally, the framework reframes the arrival of AI not as a question of tool adoption but as a question of authority, suggesting that any field absorbing generative systems must decide not merely how to use them but what epistemic standing to grant them, a question prior to and more consequential than questions of efficiency or access. The sharper contribution, however, lies in transformative education and learning. In the established tradition, transformative learning is understood as a change in frames of reference, a process by which learners critically examine the assumptions through which they make meaning and emerge with revised structures of understanding (Mezirow, 1997).

The framework reconstructed here proposes that, in an AI-mediated environment, transformation can no longer be confined to the human learner alone, because the structures through which meaning is made are now partly shaped by non-human agents that filter, rank, and compose knowledge. Transformative learning under these conditions must therefore include a critical examination of the algorithmic mediation itself, teaching learners to interrogate not only their own assumptions but also the epistemic logic of the systems that increasingly furnish those assumptions. For Islamic education specifically, this transforms the goal of *adab* from an inward moral formation into a critical-relational capacity: the formed learner is one who can stand in right relation not only to teacher, text, and tradition, but also to the algorithm, granting it use without surrendering to its authority. In this sense the study offers transformative learning theory a needed extension, moving it from a humanist account of perspective change toward a post-human account in which critical transformation encompasses the human learner and the technological mediator together.

CONCLUSION

The entry of artificial intelligence into Islamic education is best understood not as a technical upgrade but as an epistemological event, one that redistributes authority over knowledge and presses upon the hierarchy that places revelation above reason and transmitted report. This study has argued that the appropriate response is neither uncritical adoption nor refusal, but a reconstruction that grants AI a genuine yet bounded role within a knowledge order it does not govern. The post-human framework proposed here arranges that order as a descending hierarchy, with *wahy* at its summit binding reason and transmission beneath it, framing algorithmic mediation under the discipline of *maqāṣid*, flowing into the moral agency of the human teacher, and culminating in the formation of *adab*. The framework is offered as an interpretive proposition rather than an empirical finding; its coherence is theoretical, it has not been tested in the classrooms of *pesantren*, *madrasah*, or Islamic higher education, and the circularity by which it presupposes the moral formation it seeks to produce remains an open question. What it provides is a direction for inquiry and a set of hypotheses for empirical work to examine. Knowledge mediated by machines remains knowledge only so long as the human stands answerable for it.

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REFERENCES

- al-Attas, S. M. N. (1993). *The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education*. ISTAC.
- Adiyono, A. (2025). Impact of Artificial Intelligence on Student Reliance for Exam Answers: A Case Study in IRCT Indonesia. *International Journal of Learning, Teaching and Educational Research*, 24(3), 455-479. <https://doi.org/10.26803/ijlter.24.3.22>
- Al-Kassimi, K. (2023). A Postmodern (Singularity) Future with a Post-Human Godless Algorithm: Trans-Humanism, Artificial Intelligence, and Dataism. *Religions*, 14(8), 1049. <https://doi.org/10.3390/rel14081049>
- Arroisi, J. (2023). The Relevance of Contemporary Epistemology on Existing Knowledge: A Critical Analysis of Western Scientific Worldview According to al-Attas Perspective. *Afkar*, 25(2), 225-256. <https://doi.org/10.22452/afkar.vol25no2.7>
- Asnawi, N. (2025). Deconstructing Logocentrism and School-Centrism in Indonesia's Islamic Education: A Critical Epistemological Analysis. *Education Sciences*, 15(12), 1615. <https://doi.org/10.3390/educsci15121615>
- Azhar, M. H. M. (2025). Ethics and Limits of Artificial Intelligence (AI) in Quranic Exegesis According to the Epistemological Framework of Islamic Knowledge. *Quranica*, 17(2), 97-124.
- Bustillos Morales, J. A. (2024). *Towards Posthumanism in Education: Theoretical Entanglements and Pedagogical Mappings*. Routledge. <https://doi.org/10.4324/9781003365693>
- Chaaban, Y. (2025). Exploring Research Ethics through the Lens of Critical Posthumanism in the Age of Artificial Intelligence. *Teaching in Higher Education*, 30(7), 1740-1755. <https://doi.org/10.1080/13562517.2025.2465995>

- Cheong, P. H. (2021). Bounded Religious Automation at Work: Communicating Human Authority in Artificial Intelligence Networks. *Journal of Communication Inquiry*, 45(1), 5-23. <https://doi.org/10.1177/0196859920977133>
- Faizin, N. (2025). Muslim Students' Acceptance of Artificial Intelligence in Islamic Religious Education: An Extended TAM Approach. *Discover Education*, 4(1). <https://doi.org/10.1007/s44217-025-00767-1>
- Hadi, S. (2024). The Challenge of Integrating Science and Religion in Indonesia and Malaysia. *Teosofi: Jurnal Tasawuf dan Pemikiran Islam*, 14(1), 96-122. <https://doi.org/10.15642/teosofi.2024.14.1.96-122>
- Hamami, T. (2022). A Holistic-Integrative Approach of the Muhammadiyah Education System in Indonesia. *HTS Teologiese Studies / Theological Studies*, 78(4). <https://doi.org/10.4102/hts.v78i4.7607>
- Hauswald, R. (2025). AI and the Philosophy of Expertise and Epistemic Authority. In *A Companion to Applied Philosophy of AI* (pp. 55-70). Wiley. <https://doi.org/10.1002/9781394238651.ch5>
- Holmes, W. (2022). Ethics of AI in Education: Towards a Community-Wide Framework. *International Journal of Artificial Intelligence in Education*, 32(3), 504-526. <https://doi.org/10.1007/s40593-021-00239-1>
- Kosim, M. (2020). Syed Muhammad Naquib al-Attas' Ideas on the Islamization of Knowledge and Its Relevance with Islamic Education in Indonesia. *Miqot: Jurnal Ilmu-Ilmu Keislaman*, 44(2), 250-267. <https://doi.org/10.30821/miqot.v44i2.724>
- Laabdi, M. (2024). From Aslamat al-Ma'rifa to al-Takāmul al-Ma'rifi: A Study of the Shift from Islamization to Integration of Knowledge. *Religions*, 15(3), 342. <https://doi.org/10.3390/rel15030342>
- Lala, I. (2025). Islamic Guidance and Artificial Intelligence: An Epistemological Perspective. *Philosophy and Technology*, 38(4). <https://doi.org/10.1007/s13347-025-00989-z>
- Lyhne, C. N., Thisted, J., & Bjerrum, M. (2025). Qualitative Content Analysis: Framing the Analytical Process of Inductive Content Analysis to Develop a Sound Study Design. *Quality & Quantity*. Advance online publication. <https://doi.org/10.1007/s11135-025-02089-8>
- McInerney, T. (2025). The Algorithmic Construction of Epistemic Injustice. In *Palgrave Socio-Legal Studies* (pp. 123-154). Palgrave Macmillan. https://doi.org/10.1007/978-3-032-07581-9_5
- Mezirow, J. (1997). Transformative Learning: Theory to Practice. *New Directions for Adult and Continuing Education*, 1997(74), 5-12. <https://doi.org/10.1002/acc.7401>
- Nguyen, A., Ngo, H. N., Hong, Y., Dang, B., & Nguyen, B. P. T. (2023). Ethical Principles for Artificial Intelligence in Education. *Education and Information Technologies*, 28(4), 4221-4241. <https://doi.org/10.1007/s10639-022-11316-w>
- Nicmanis, M. (2024). Reflexive Content Analysis: An Approach to Qualitative Data Analysis, Reduction, and Description. *International Journal of Qualitative Methods*, 23, 1-11. <https://doi.org/10.1177/16094069241236603>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- Paya, A. (2023). 'Islamization of Knowledge': A Utopian Dream or a Viable Project? A Critique of the Views of Two Prominent Iranian Proponents of the 'Islamization Project'. *British Journal of Middle Eastern Studies*, 50(4), 962-982. <https://doi.org/10.1080/13530194.2022.2048462>
- Pedersen, H. (2025). Post-Anthropocentric Pedagogies: Purposes, Practices, and Insights for Higher Education. *Teaching in Higher Education*, 30(2), 344-358. <https://doi.org/10.1080/13562517.2023.2222087>

- Perreault, G. P. (2025). ChatGPT, Generative AI, and an Epistemic Opportunity for Journalistic Authority. *Digital Journalism*. Advance online publication. <https://doi.org/10.1080/21670811.2025.2510967>
- Popova, B. (2020). Islamic Philosophy and Artificial Intelligence: Epistemological Arguments. *Zygon*, 55(4), 977-995. <https://doi.org/10.1111/zygo.12651>
- Ramos-Zaga, F. A. (2025). Synthetic Verisimilitude and Epistemic Regimes in Algorithmic Culture: Affective and Sociotechnical Reconfigurations of Truth. *Desde el Sur*, 17(4). <https://doi.org/10.21142/DES-1704-2025-0081>
- Sofi, M. J. (2025). Pesantren in Dynamic Transformation: Harmonizing Classical Roots and Modern Practices. *Miqot: Jurnal Ilmu-Ilmu Keislaman*, 49(2), 333-353. <https://doi.org/10.30821/miqot.v49i2.1459>
- Suyadi. (2022). Academic Reform and Sustainability of Islamic Higher Education in Indonesia. *International Journal of Educational Development*, 89, 102534. <https://doi.org/10.1016/j.ijedudev.2021.102534>
- Urban, M. (2025). "ChatGPT Can Make Mistakes. Check Important Info." Epistemic Beliefs and Metacognitive Accuracy in Students' Integration of ChatGPT Content into Academic Writing. *British Journal of Educational Technology*, 56(5), 1897-1918. <https://doi.org/10.1111/bjet.13591>
- Wedi, A. (2025). Digital Transformation Model of Islamic Religious Education in the AI Era: A Case Study of Madrasah Aliyah in East Java, Indonesia. *International Journal of Learning, Teaching and Educational Research*, 24(8), 842-863. <https://doi.org/10.26803/ijlter.24.8.37>
- Zaini, A. (2022). Modernizing Islamic Education in the Most Populated Muslim World. *Journal of Indonesian Islam*, 16(1), 175-196. <https://doi.org/10.15642/JIIS.2022.16.1.175-196>