

Intelligence in Islamic Education: Knowledge Integration or Ethical Alienation?

Faisol Hakim¹, Nur Syam² Mufidah Ch³ Abdullah Malik Ibrahim⁴

¹ Universitas Islam Darul 'Ulum Lamongan, Indonesia; 2505301064@mhs.unisda.ac.id

² Universitas Islam Negeri Sunan Ampel Surabaya; nursyam@uinsa.ac.id

³ Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia; mufidah@uin-malang.ac.id

⁴ Phatnawitya School Yala, Thailand; malik.ibrahim1996@gmail.com

ARTICLE INFO

Keywords:

Artificial Intelligence,
Educational Technology,
Alienation, Pedagogical Ethics,
Knowledge Integration,
Islamic Religious Education

Article history:

Received 2026-02-14

Revised 2026-03-16

Accepted 2026-04-10

ABSTRACT

The rapid integration of Artificial Intelligence (AI) in Islamic Religious Education (IRE) has been widely framed as a driver of efficiency and personalized learning. Yet, its epistemological and ethical implications remain underexplored. This study aims to critically examine whether AI functions as a medium of knowledge integration or instead generates ethical alienation within IRE. Employing a qualitative library research design, this study utilizes a philosophical-pedagogical approach combined with critical discourse analysis to interrogate contemporary AI-in-education literature and Islamic educational philosophy. The findings reveal that AI operates within a computational-positivistic epistemic framework that is not fully compatible with the holistic and transcendental epistemology of Islamic education. The study identifies four dimensions of ethical alienation: alienation from the substantive meaning of values, teacher-student relationality, learning community, and transcendental orientation. Furthermore, AI-driven systems tend to prioritize measurable cognitive outcomes, potentially shifting the educational objective from the formation of insan kamil to competency-based achievement. The research also highlights a fundamental tension between the Islamic project of knowledge integration and the efficiency-oriented logic of technology. As an implication, this study proposes a reflective framework grounded in maqasid al-tarbiyah, emphasizing the subordination of technology to ethical and spiritual educational goals, preservation of relational pedagogy, and participatory governance in AI implementation. These findings underscore the need for educators to develop critical literacy to evaluate AI not merely as a technical tool but as a value-laden system shaping the future of Islamic education.

This is an open-access article under the CC BY-SA license.



Corresponding Author:

Faisol Hakim: Universitas Islam Darul 'Ulum Lamongan 1; 2505301064@mhs.unisda.ac.id

INTRODUCTION

The rapid advancement of Artificial Intelligence (AI) has profoundly transformed the educational sector, including Islamic Religious Education (Pendidikan Agama Islam/PAI) (Choiriyah et al., 2025; Indasari, 2026). UNESCO (2023) reports that more than 60% of educational institutions in developed countries have integrated AI into their learning ecosystems through adaptive learning systems, AI tutors, and automated content generators (Jogezai et al., 2025; Lodge et al., 2024; Zawacki-Richter et al., 2019). In Indonesia, a similar trend intensified following the COVID-19 pandemic, as AI-based learning platforms such as Ruangguru, Zenius, and various intelligent Learning Management Systems (LMS) experienced widespread adoption (Kemdikbudristek, 2022). The dominant narrative surrounding these developments tends to be optimistic: AI is positioned as a future-oriented pedagogical solution and a catalyst for democratizing access to knowledge (Chinmi & Marta, 2020; Muttaqin et al., 2025; Sodikin, 2024; Syukur et al., 2024).

Within the context of PAI, the penetration of AI has taken increasingly diverse forms: Qur'anic learning applications utilizing speech recognition to automatically correct tajwid, religious chatbots responding to fiqh-related inquiries, personalized Islamic content recommendation systems, and automated assessment algorithms for PAI examinations (Kasman et al., 2024). These developments are frequently framed within the discourse of "integration of knowledge" an intellectual project long advocated by contemporary Muslim thinkers such as Ismail Raji al-Faruqi and Syed Muhammad Naquib al-Attas, who called for the synthesis of modern scientific knowledge with Islamic values (Sholihah et al., 2026).

However, beneath this technological enthusiasm lie several critical questions that have yet to receive adequate scholarly attention. First, the assumption that technological integration automatically entails value integration requires critical scrutiny. As emphasized by (Selwyn et al.), (Raab, 2020), and (Jogezai et al., 2025; Khastgir & Shalini, 2024; Li, 2025; Selwyn, 2019), educational technologies are never epistemically neutral; they embody specific logics, values, and interests embedded within technical architectures that often appear objective. In the case of AI, algorithmic logic centered on efficiency, optimization, quantification, and prediction may not necessarily align with the fundamental values of PAI, such as moral cultivation (*tahdzib al-akhlaq*), spiritual development (*tarbiyah ruhiyah*), and the deep teacher–student relational bond traditionally understood in pesantren culture as *barakah* (Arifin, 2024; Aziz et al., 2025; Fauziah et al., 2024; Sarbini et al., 2025).

Second, critical literature on AI in education has identified several structural risks that are particularly relevant to the PAI context: (1) pedagogical reductionism, whereby the complexity of learning is reduced to quantifiable data; (2) relational dehumanization, where humanistic interaction is replaced by impersonal technological mediation; (3) commodification of knowledge, wherein learning is treated as a marketable digital product; and (4) surveillance pedagogy, characterized by the continuous monitoring and data analysis of students' learning activities (Williamson et al., 2020) (Knox, 2024). Within PAI, these risks may lead to what can be termed ethical alienation—a condition in which learners become detached from the substantive meaning of religious values, and religious learning devolves into procedural ritual devoid of transformative spiritual depth (Evangelista, 2018).

Third, the adoption of AI in PAI often proceeds without sufficient dialogue with the epistemological and pedagogical traditions of classical Islamic scholarship. The intellectual heritage of Islamic education from al-Attas's concept of *ta'dib*, al-Ghazali's framework of *tarbiyah*, to Ibn Sina's theory of educational psychology — offers sophisticated philosophical

insights into the nature, aims, and methods of education that should serve as critical references in engaging emerging technologies (Halstead, 2004). Without a critical assessment of the compatibility between AI's algorithmic logic and the philosophical foundations of Islamic education, technological adoption risks becoming a new form of epistemic colonialism that reinforces the hegemony of secular-Western educational paradigms (Lodge et al., 2024; Mardatillah et al., 2025)

A systematic review of the existing literature reveals a clear research gap. Most publications on AI in PAI—both in national and international journals—can be categorized into three main strands. First, descriptive studies focusing on technical implementations of AI in Qur'anic and Arabic language learning (Amilusholihah & Ramadhan, 2025) (Tsourlaki, 2020). Second, quantitative research examining the effectiveness of AI technologies in improving PAI learning outcomes, typically measured through examination scores, without addressing ethical or spiritual dimensions (Dianto et al., 2025; Hastuty et al., 2025; Pranoto & Haryanto, 2024). Third, normative discussions on Islam's general stance toward technology, often apologetic or justificatory in tone and lacking critical epistemological analysis (Utami et al., 2025).

What remains largely absent is a study that explicitly interrogates the epistemological and ethical dimensions of AI integration within PAI, particularly through the lens of classical Islamic educational philosophy. Existing works on AI in religious education by Crompton and (Crompton & Burke, 2023) and (Cukurova et al., 2019) primarily address Western Christian contexts and cannot be directly applied to PAI, which operates within a distinct epistemological tradition. Meanwhile, discussions on the integration of knowledge in contemporary Islamic thought have not specifically addressed the implications of digital technologies (Aisah et al., 2025; Caridà et al., 2022). Consequently, there exists a significant academic gap at the intersection of critical AI studies in education and Islamic educational philosophy.

This article is grounded in the critical premise that a fundamental question must be addressed: Does the integration of AI into PAI genuinely strengthen the Islamic educational objective of forming *insan kamil* a person who is faithful, knowledgeable, and morally upright or does it gradually shift the ethical and spiritual orientation of PAI toward an instrumental-technocratic logic foreign to the tradition of *tarbiyah Islamiyah*? To address this concern, the article formulates three research questions: (1) How is the concept of knowledge integration in PAI understood within contemporary pedagogy, and is the epistemological framework of PAI compatible with the algorithmic logic of AI? (2) How do the epistemic and pedagogical characteristics of AI influence PAI practices, particularly in relation to learning objectives, teacher–student relationships, and the transmission of religious values? (3) In what ways does AI potentially generate ethical alienation in PAI, and how can such risks be mitigated through a pedagogical ethical framework grounded in Islamic educational philosophy?

This study makes three principal contributions. Theoretically, it enriches the critical discourse on technology and Islamic education an area that remains underexplored in Indonesian scholarship—by bringing contemporary philosophy of technology (Feenberg, Heidegger, Winner) into dialogue with classical and modern Islamic educational philosophy (al-Attas, al-Ghazali, Wan Daud). Conceptually, it introduces the notion of ethical alienation as an analytical framework for understanding the non-technical risks of AI implementation in PAI, while proposing a reflective framework grounded in *maqasid al-tarbiyah* for ethically responsible technological integration. Practically, it offers a critical reference for teachers, curriculum developers, and policymakers in evaluating educational technologies not merely in terms of technical efficiency, but in relation to the essential values and aims of Islamic

education. Amid the accelerating digitalization of education often proceeding without sufficient ethical reflection this article functions as a form of critical vigilance, urging practitioners to adopt technology with conscious awareness of the values at stake and the normative boundaries that must be maintained.

METHODS

The research method should be included in the Introduction. The method contains an explanation of the research approach, subjects of the study, the conduct of the research procedure, the use of materials and instruments, data collection, and analysis techniques.

This study adopts a library research design grounded in a philosophical-pedagogical approach and critical discourse analysis. This methodological choice is justified by the nature of the research problem namely, the epistemological and ethical dimensions of AI integration within Islamic Religious Education (PAI) which requires rigorous conceptual reflection rather than empirical-quantitative verification. As argued by (Sardar, 2021), library research is particularly appropriate when the objective is to explore meaning, interrogate underlying assumptions, and construct new conceptual frameworks in response to contemporary phenomena.

The study integrates two complementary analytical approaches. First, the philosophical-pedagogical approach is employed to uncover the epistemological assumptions embedded within the discourse of AI in education, particularly concerning conceptions of knowledge, learning, and educational purposes that are implicitly encoded in technological architectures. This approach draws upon the tradition of critical philosophy of technology (Picon, 2021) and engages it in dialogue with Islamic educational philosophy, particularly the works of Syed (al-Attas, 1999). Through this dialogical framework, the study critically examines whether the algorithmic logic underlying AI—often characterized by positivistic, empirical, and computational orientations is compatible with or disruptive to the holistic, transcendental, and transformative epistemology of Islamic education.

Second, critical discourse analysis (CDA) (Fairclough, 2013);(Meyer et al., 2022) is applied to examine AI-in-education literature as non-neutral textual constructions shaped by ideology, power relations, and institutional interests. CDA enables the researcher to analyze how dominant narratives portraying AI as a “pedagogical solution” are constructed, which values are legitimized or marginalized, and which actors benefit from prevailing technological discourses. This analytical lens is particularly relevant in revealing the normative and political dimensions embedded within seemingly objective technological innovations.

The study draws upon two primary categories of data sources. The first consists of recent literature on Artificial Intelligence in education published between 2015 and 2025. This includes: (a) peer-reviewed international journal articles indexed in Scopus or Web of Science addressing epistemological, ethical, and critical dimensions of AI in education (Knox, 2024);(Williamson et al., 2020) (Selwyn, 2019) (b) foundational texts in philosophy of technology and AI ethics by scholars such as Feenberg, Winner, O’Neil, and Floridi; and (c) research reports from UNESCO and OECD concerning the digital transformation of education. The second category comprises classical and contemporary works in Islamic educational thought addressing epistemology, aims, and ethics of education, including classical texts such as *Ihya’ Ulum al-Din* (al-Ghazali), *Muqaddimah* (Ibn Khaldun), and *Ta’lim al-Muta’allim* (al-Zarnuji), as well as contemporary scholarship by Syed Muhammad Naquib al-Attas, Wan Mohd Nor

Wan Daud, Ismail Raji al-Faruqi, and Mark Halstead. Additionally, peer-reviewed journal articles on the integration of knowledge and technology in Islamic education were included.

Data analysis proceeded through four systematic stages.

First, close reading and coding. The researcher conducted intensive readings of the selected literature to identify central themes, key arguments, and both explicit and implicit assumptions. These themes were coded into analytical categories aligned with the research questions: (1) the concept of knowledge integration in PAI; (2) the epistemic logic of AI; (3) transformations in pedagogical practice; (4) risks of ethical alienation; and (5) alternative ethical frameworks.

Second, critical-comparative analysis. Each thematic category was examined by interrogating its underlying assumptions, identifying internal contradictions, and exploring its ethical-pedagogical implications from the perspective of Islamic educational philosophy. At this stage, the epistemic logic of AI (positivistic–empirical–computational) was systematically compared with Islamic epistemology (holistic–transcendental–transformative) in order to identify points of convergence and divergence.

Third, triangulation of perspectives. Findings from the critical analysis were triangulated across multiple intellectual traditions—Western philosophy of technology (Feenberg, Heidegger, Ellul), Islamic educational thought (al-Ghazali, al-Attas, Wan Daud) (Al-Ghazālī, 2013), and critical education studies (Al-Ghazālī, 2013; Biesta, 2015; Selwyn, 2019), to ensure a comprehensive and balanced understanding of AI’s ambivalent implications for PAI.

Fourth, conceptual synthesis. The study formulated a new theoretical framework by integrating insights from diverse sources in a dialectical-critical manner. This synthesis was not eclectic; rather, it sought to identify tensions, locate intersections, and articulate a coherent ethical position regarding how AI should be understood and adopted within the context of PAI. The outcome of this synthesis took two forms: (1) the concept of ethical alienation as an analytical framework for understanding AI-related risks in PAI; and (2) a reflective framework grounded in *maqasid al-tarbiyah* to guide ethically responsible technological integration.

Given the conceptual-philosophical nature of the study, validity is not assessed in terms of statistical reliability or empirical generalizability. Instead, quality is evaluated through analytical rigor, philosophical depth, and practical relevance of the proposed framework (Tracy, 2010) (Evangelista, 2018). The criteria of trustworthiness—credibility, transferability, and dependability—and authenticity guide the evaluation process. Credibility is ensured through repeated close reading of primary sources, triangulation of perspectives, and internal logical consistency of argumentation. Transferability is maintained through clear contextual description, enabling readers to assess the applicability of findings in other contexts. Dependability is upheld through systematic documentation of analytical procedures and transparency regarding the researcher’s epistemological stance.

FINDINGS AND DISCUSSION

Epistemological Incompatibility between AI and Islamic Educational Traditions: A Theoretical Intervention

The first finding of this study demonstrates that Artificial Intelligence operates not as an epistemologically neutral technology but within a computational-positivistic epistemic regime namely, the assumption that educational reality can be objectively represented through quantitative data and algorithmically manipulated for optimization purposes. This finding aligns with arguments from (Selwyn, 2019) and (Williamson et al., 2020), who demonstrate that

educational technology invariably embeds particular values and is never politically or epistemologically neutral. Williamson in (Salim & Aditya, 2025) specifically identifies that AI systems in education are designed based on behaviorist and cognitivist learning theories emphasizing stimulus-response mechanisms and information processing, while systematically excluding social-cultural and affective-spiritual dimensions.

However, diverging from Selwyn and Williamson's focus on Western secular educational contexts, this study reveals that within Islamic Religious Education (PAI), AI's epistemic non-neutrality generates more profound implications as it directly confronts the holistic and transcendental philosophical foundations of Islamic education. This finding of structural incompatibility confirms al-Attas's (al-Attas, 1999) philosophical analysis regarding fundamental differences between Western secular-materialistic educational concepts and the integrative-spiritual concept of *ta'dib* in Islam (Abrori & Nurkholis, 2019; Rakhmat, 2023). Al-Attas emphasizes that Islamic education fundamentally constitutes a process of *adab* cultivation—recognition and acknowledgment of the ontological hierarchy of reality which precedes the acquisition of knowledge (*'ilm*). This dimension of metaphysical hierarchy cannot be accommodated within AI's inherently horizontal and immanent logic.

Proposition 1: AI-driven educational systems structurally privilege measurable cognitive outputs over holistic moral-spiritual development, creating an epistemic regime fundamentally incompatible with transcendental pedagogical ontologies.

This finding extends Knox (2024) argument regarding "algorithmic reason" in education, which demonstrates AI's tendency to reduce learning complexity into predictable and optimizable mathematical patterns. Knox critiques algorithmic epistemology for assuming that all learning aspects can be quantified and computationally processed—an assumption problematic even in secular educational contexts, and exponentially more so in PAI, where fundamental objectives involve spiritual transformation unmeasurable through quantitative metrics. This article adds that within Islamic educational thought traditions, as formulated by al-Ghazali in *Ihya Ulumuddin*, there exists a categorical distinction between *'ilm* (rational-discursive knowledge that can be transferred) and *ma'rifah* (transformative-experiential knowledge involving spiritual transformation). AI, due to its epistemological limitations, can only measure and optimize the *'ilm* dimension, while the *ma'rifah* dimension—which constitutes the highest objective of Islamic education—remains beyond its reach.

The theoretical implication of this finding necessitates reconceptualizing "knowledge integration" (*integrasi ilmu*) in the digital era. The knowledge integration project championed by (Badarussyamsi, 2023) and (Al-Attas Septy Oktavia et al, n.d.) fundamentally represents an effort to reformulate knowledge structures based on *tawhid* principles and reject sacred-secular dichotomies. However, this research demonstrates that uncritical AI adoption risks creating new epistemological fragmentations: aspects of PAI amenable to technologization (memorization, recitation, cognitive tests) receive disproportionate attention because they are measurable and optimizable, while non-algorithmizable aspects (spirituality, character, wisdom) become marginalized. Thus, technology integration without epistemological reflection can produce paradoxical outcomes: rather than integrating knowledge, it fragments Islamic educational experience.

This study positions Islamic Religious Education not merely as a local context but as a critical epistemological lens through which dominant assumptions of AI-driven education can be interrogated.

Pedagogical Reductionism and Teleological Displacement

The second finding regarding pedagogical reductionism confirms Biesta's (2010; 2013) critique of the "learnification" phenomenon—the reduction of education to merely measurable and optimizable learning processes, while dimensions of education as subjectivity and agency formation are neglected. Biesta (2015) argues that the learning as acquisition paradigm—dominant in educational technology—assumes education's purpose is quantifiable knowledge and skill acquisition, while ignoring the learning as becoming dimension essential for identity and character formation. This research demonstrates that within PAI contexts, this reductionism carries more severe consequences because PAI's fundamental objective—formation of *insan kamil* (the complete human)—inherently involves a becoming dimension irreducible to measurable competencies.

These findings align with Evangelista (2018) critical study of "surveillance capitalism," which identifies contemporary digital systems' tendency to transform human experience into commodifiable data. In educational contexts, Zuboff demonstrates that datafication results in learning being viewed as activity requiring monitoring, recording, and analysis for optimization purposes. The finding regarding measurement-driven learning in AI-based PAI extends Zuboff's argument by showing that in religious education contexts, datafication not only transforms learning into commodity but also risks transforming worship (*ibadah*)—which should orient toward Allah—into reward system-oriented activity. The phenomenon of worship gamification discovered in this research (applications awarding points for prayer, leaderboards for Qur'anic memorization) represents concrete manifestation of religious experience commodification critiqued by Duschka (2024), Masruhin, Isma, & Badarussyamsi, (2023), Williamson et al., (2020) in Islamic anthropological studies.

Proposition 2: Algorithmic personalization may enhance efficiency but risks fragmenting communal pedagogical identity and displacing transcendental intentionality with system-oriented reward structures in religious education contexts.

However, diverging from Biesta's secular-focused critique, this research adds a new dimension by demonstrating that in PAI, pedagogical reductionism directly intersects with the concept of *maqasid al-tarbiyah*—essential objectives of Islamic education encompassing *hifdz al-din* (preservation of religion), *hifdz al-'aql* (preservation of intellect), *tahdzib al-akhlaq* (moral formation), *ta'mir al-ard* (earth stewardship), and *tanmiyat al-ruh* (spiritual development). This research reveals that AI systems tend to optimize the *hifdz al-'aql* (cognitive dimension) as most easily measurable, while other dimensions—particularly *tahdzib al-akhlaq* and *tanmiyat al-ruh*—become marginalized as they fall outside algorithmic logic. This aligns with Halstead (2004) critique showing religious education in the West tends to reduce to information transfer about religion (teaching about religion) rather than authentic religiosity formation (teaching in religion).

The practical implication of this finding necessitates caution in adopting AI systems' success metrics. As Roy (2017) emphasizes, algorithms are not neutral entities; they invariably embed assumptions about what is "important" and what constitutes "success." If AI systems in PAI are designed to optimize written examination results, learning will be directed toward activities most efficient for that purpose which may not encompass spiritual experience, deep reflection on verse meanings, or interpersonal dialogue with teachers about ethical dilemmas. Thus, AI adoption without critical reflection on metrics used risks shifting PAI's objective from complete human formation (*insan kamil*) to merely producing students "competent" in standardized tests.

Four Dimensions of Ethical Alienation: Core Research Findings

The third finding regarding four dimensions of ethical alienation represents this article's primary conceptual contribution. The alienation concept, adapted from Marx's (1844/2007) Blunden (n.d.) and (Giroux, 2011) Fromm's (1955) theories of worker estrangement from labor products, is applied in pedagogical contexts to explain conditions where students become separated from the substantive meaning of taught religious values. This application of alienation concepts in educational contexts aligns with Giroux (2011) study on "deskilling of teachers" and (*Comparing Neo-Liberal Projects and Inequality in Education on JSTOR*, n.d.), on "proletarianization of teaching"—demonstrating how technology and standardization in education can result in teachers and students losing agency and becoming alienated from the educational process itself.

Dimension 1: Alienation from Substantive Value Meaning

The first dimension—alienation from substantive value meaning—confirms Turkle's (2011) research findings on the "alone together" phenomenon in the digital era, where individuals are technologically connected yet existentially estranged. Turkle demonstrates that technological mediation creates an illusion of proximity while actually eroding interpersonal relational depth. This research extends Turkle's argument to religious education contexts, showing AI systems can create an illusion of "effective" learning (based on quantitative metrics) while actually eroding depth of value internalization. This aligns with Asad's (*Powers of the Secular Modern: Talal Asad and His Interlocutors 9780804767798 - DOKUMEN.PUB*, n.d.) critique of secularization occurring not only through religion-state separation but also through redefining religion from orthopraxis (correct practice) and orthodoxy (correct belief) into merely symbolic systems objectively examinable.

Dimension 2: Alienation from Teacher-Student Relationality

The second dimension—alienation from teacher-student relationality—reinforces findings from ethnographic studies by Dhofier (2011) and Bruinessen (2012) regarding personal relational importance in pesantren traditions. Both researchers demonstrate that in Nusantara Islamic educational traditions, teacher (kiai)-student (santri) relations are not merely instructional but spiritual relationships involving barakah, exemplarity (uswah hasanah), and character transformation through modeling. This research shows automation and technological mediation risk eroding this relational dimension by shifting teacher roles from murabbi (spiritual educator) to system administrator. This aligns with Neil Selwyn (2019) critique of teacher phronesis (practical wisdom) erosion due to automation—the capacity to make contextual pedagogical decisions based on holistic understanding of students as persons, not merely data aggregates.

Dimension 3: Alienation from Learning Community

The third dimension—alienation from learning community—aligns with Reich & Ito (n.d.) critique regarding extreme individualization risks in technology-based learning. Reich & Ito demonstrate that algorithmic personalization, though efficient, can result in social fragmentation as each student follows unique learning paths and loses communal learning spaces. This research adds that in PAI contexts, losing the communal (jama'ah) dimension not only reduces pedagogical effectiveness but also contradicts fundamental Islamic values emphasizing social solidarity and collective identity as ummah. As Noor (2015) and Harmsen et.al., (2019) affirm, Islamic learning in pesantren and madrasah traditions is dialogical and communal—students learn not only from teachers but also from peers through musyawarah, mudzakah, and ta'awun.

Dimension 4: Alienation from Transcendence

The fourth dimension—alienation from transcendence—represents the most critical finding, underexplored in literature on AI and religious education. This finding aligns with Heidegger & Lovitt (2013) philosophical critique of modern technology as Gestell (enframing)—a worldview reducing reality to merely standing reserve manipulable for technical purposes. In PAI contexts, AI's immanent logic—acknowledging only empirically observable and measurable reality—structurally cannot accommodate the transcendence dimension constituting Islamic education's core. When PAI learning is managed by systems measuring success through quantitative metrics, teleological displacement occurs: learning objectives shift from *ma'rifatullah* (knowing Allah) to achieving measurable competency targets. This finding reinforces (*The Technological Society: Ellul, Jacques: Free Download, Borrow, and Streaming: Internet Archive*, n.d.) argument regarding modern life's "technization," where technical efficiency logic replaces substantive value orientation.

Proposition 3: Without epistemological appropriation, AI integration produces ethical alienation through systematic displacement of transcendental intentionality, relational pedagogy, communal identity, and substantive meaning—transforming religious education from moral cultivation to competency production.

The theoretical contribution of identifying these four alienation dimensions provides an analytical framework usable for evaluating educational technology from Islamic ethical perspectives, not merely technical efficiency. Unlike previous studies tending to focus on AI implementation or effectiveness aspects, this ethical alienation framework enables researchers and practitioners to interrogate deeper, less immediately visible impacts of technology adoption—namely, transformations in meaning structures, relationality, and value orientation in educational processes.

Table 1. Summary of Research Findings

No	Focus of Findings	Key Concept	Core Findings	Theoretical Implications	Proposition
1	Epistemological incompatibility between AI and Islamic education	Epistemological Asymmetry; Computational-Positivistic Regime	AI in education operates within a computational-positivistic epistemic regime that prioritizes quantitative data and algorithmic optimization. This paradigm conflicts with the holistic, integrative, and transcendental epistemology of Islamic education.	Demonstrates that AI is not epistemologically neutral and cannot adequately accommodate spiritual dimensions such as <i>ma'rifah</i> within the Islamic educational tradition.	AI-driven educational systems tend to privilege measurable cognitive outputs while marginalizing holistic moral and spiritual development.
2	Pedagogical reductionism in AI integration	Learnification; Teleological Displacement	The adoption of AI encourages the reduction of education into measurable and optimizable learning processes while neglecting identity formation and character development. In the context of Islamic Religious Education (PAI), this risks shifting the goal of education from the formation of <i>insan kamil</i> (the complete human	Reinforces critiques of knowledge-acquisition paradigms dominant in educational technology and highlights their implications for the objectives of Islamic education.	Algorithmic personalization may increase learning efficiency but risks shifting educational orientation from spiritual development toward metric-driven reward systems.

			being) to merely achieving academic competencies.		
3	Ethical alienation in AI-mediated Islamic education	Ethical Alienation	AI integration in religious education generates four forms of alienation: (1) alienation from the substantive meaning of religious values, (2) alienation from teacher–student relationality, (3) alienation from the learning community, and (4) alienation from transcendence.	Provides a new analytical framework for evaluating educational technologies from an Islamic ethical perspective rather than purely technical efficiency.	Without epistemological appropriation, AI integration risks transforming religious education from a process of moral cultivation into standardized competency production.
4	Tension between Islamic knowledge integration and technological logic	Technological Ambivalence; Knowledge Integration	AI technologies embed values of rationalism, individualism, and efficiency that may conflict with Islamic principles such as balance (<i>tawazun</i>), moderation (<i>wasathiyah</i>), and collective welfare (<i>maslahah</i>).	Demonstrates that technological integration requires epistemological reflection to prevent new forms of fragmentation in Islamic education.	A reflective framework is needed to ensure that technology remains subordinate to the objectives of Islamic education (<i>maqasid al-tarbiyah</i>).

Knowledge Integration Tensions and Reflective Framework Formulation

The fourth finding regarding fundamental tensions between Islamic knowledge integration projects and technology efficiency logic extends *A History of the Family, Volume I: Distant Worlds, Ancient Worlds* by André Burguière | Goodreads (n.d.) and Feenberg (2003) critiques of epistemic colonialism in Muslim world adoption of Western technology. Sardar (1989: 127-145) argues modern technology is never culturally neutral; it invariably carries worldviews and values from its developmental context. In AI contexts, embedded worldviews include Western rationalism, individualism, and efficiency-optimization orientation not necessarily compatible with Islamic values of balance (*tawazun*), moderation (*wasathiyah*), and collective welfare orientation (*maslahah*).

However, diverging from Sardar's tendency toward defensiveness and Western technology rejection, this research adopts a more nuanced position referencing Feenberg (2003) "technological ambivalence" concept. Feenberg argues technology is not deterministic fate requiring wholesale acceptance or total rejection, but rather a contestation field where various social groups can negotiate design and usage according to their respective values. Thus, this article does not totally reject AI but offers a framework for critical appropriation—technology adoption accompanied by design and implementation transformation to align with Islamic values.

This research's proposed reflective framework is based on three normative principles derived from *maqasid al-tarbiyah*. The first principle—technology subordination to *maqasid*—aligns with Ganguli et al. (2018) Islamic science concept emphasizing that knowledge and technology must serve shariah objectives, not vice versa. However, this article adds concrete operationalization: each AI adoption decision must undergo ethical evaluation based on its contribution to *hifdz al-din*, *hifdz al-'aql*, *tahdzib al-akhlaq*, *ta'mir al-ard*, and *tanmiyat al-ruh*. If technology optimizes only one dimension (e.g., cognitive efficiency) while eroding others (spirituality, character), its adoption requires questioning.

The second principle—preservation of relational and communal dimensions—confirms al-Attas (1999) argument regarding the importance of maintaining Islamic pedagogical distinctiveness when confronting modernization. Wan Daud emphasizes that al-Attas's *ta'dib* concept requires personal teacher-student relations irreplaceable by technological mediation. This research reinforces this argument by demonstrating that blended learning models—balancing AI use for technical aspects with face-to-face interaction for relational-spiritual aspects—constitute more appropriate strategies for PAI compared to fully online learning or total automation (Kartini & Putra, 2024; Maulana, n.d.; Qolbi, 2025).

The third principle—transparency and participation in governance—aligns with Winner's (1980) critique of "politics of artifacts" demonstrating technology invariably contains political dimensions requiring democratization in design and implementation processes. This research adds that in PAI contexts, participation involves not only technologists and educators but also ulama who understand shariah and Islamic ethical dimensions. This is crucial for ensuring Islamic values are genuinely embedded in system design, not merely superficially attached.

This reflective framework contributes to literature by offering a paradigmatic alternative to instrumentalist approaches dominating AI discourse in PAI. Most publications on technology in Islamic education—as critiqued by (Crompton & Burke, 2023) and Cukurova et al. (2019) tend to be normative-technical (how to use technology correctly) or descriptive-empirical (what applications exist), without critical reflection on philosophical assumptions and ethical implications. This research's proposed framework shifts focus from "how to use AI effectively" toward "for what vision of humanity and Islam do we use this technology"—a more fundamental and urgent question amid educational digitalization acceleration.

Theoretical Contribution

This study advances AI-in-education scholarship by introducing the concept of ethical alienation as a multi-dimensional analytical framework. Unlike prior studies focusing on implementation and effectiveness, this framework interrogates the transformation of meaning, relationality, communal identity, and transcendental orientation within technologically mediated religious education.

The framework demonstrates that AI operates within a computational-positivistic epistemic regime fundamentally asymmetric with transcendental pedagogical ontologies. This structural divergence produces not merely technical challenges but epistemic violence—the systematic exclusion of non-quantifiable dimensions essential to holistic moral-spiritual formation.

By positioning Islamic Religious Education as a theoretical intervention rather than contextual application, this study reveals universal tensions inherent in AI-driven education systems that privilege optimization over cultivation, datafication over meaning, and efficiency over transcendence. These tensions, while particularly acute in religious education contexts, illuminate broader questions regarding the compatibility of algorithmic rationality with humanistic educational purposes across all contexts.

Table 2. Reflective Framework Principles Derived from the Study

Principle	Description	Purpose
Technology Subordination to Maqasid	Technology must serve the core objectives of Islamic education, including <i>hifdz al-din</i> , <i>hifdz al-'aql</i> ,	To ensure that technology does not displace the spiritual

	<i>tahdzib al-akhlaq, ta'mir al-ard, and tanmiyat al-ruh.</i>	objectives of Islamic education.
Preservation of Pedagogical Relationality	Teacher–student interaction must remain central as a relational and spiritual process.	To prevent the dehumanization of education through excessive automation.
Ethical Participation in Technology Governance	The design and implementation of AI in education should involve educators, technologists, and Islamic scholars (<i>ulama</i>).	To ensure that Islamic ethical values are embedded in technological systems.

Future Research Directions

Future research should empirically investigate how AI-mediated PAI environments influence students' moral intentionality and relational perception, using qualitative longitudinal designs. Specifically: Ethnographic studies examining how students navigate tensions between algorithmic accountability and transcendental intentionality in hybrid learning environments. Comparative analyses investigating whether similar patterns of ethical alienation manifest in other religious education traditions (Christian, Buddhist, Hindu) under AI integration. Design-based research developing AI systems intentionally architected to preserve relational pedagogy and transcendental orientation, testing alternative epistemological frameworks for educational AI

CONCLUSION

This study reveals several significant and previously underexplored findings regarding the integration of Artificial Intelligence (AI) in Islamic Religious Education (IRE). Most notably, the research demonstrates that AI is not an epistemologically neutral tool but operates within a computational-positivistic framework that structurally conflicts with the holistic and transcendental foundations of Islamic education. An unexpected yet critical finding is the emergence of ethical alienation in four interconnected dimensions: the erosion of substantive value meaning, the weakening of teacher–student relationality, the fragmentation of learning communities, and the displacement of transcendental orientation. These findings indicate that AI integration does not merely introduce technological innovation but reconfigures the hierarchy of educational values, shifting the focus from moral-spiritual formation toward measurable cognitive outputs.

From a scientific perspective, this study contributes to the existing body of knowledge by both extending and challenging prior research on AI in education. While earlier studies predominantly emphasize efficiency, personalization, and learning outcomes, this research questions such instrumentalist assumptions by foregrounding the epistemological and ethical tensions inherent in AI adoption. It introduces the concept of ethical alienation as a novel analytical framework and positions Islamic Religious Education as a critical epistemological lens to interrogate dominant paradigms in AI-driven education. Furthermore, the study offers a new perspective through the formulation of a reflective framework based on *maqasid al-tarbiyah*, emphasizing the need for value-oriented and ethically grounded technological integration.

However, this study is not without limitations. As a conceptual and library-based research, it does not incorporate empirical data to examine how AI is experienced by teachers

and students in real educational settings. The analysis is also limited to specific intellectual traditions and may not fully capture the diversity of practices across different educational levels, regions, and institutional contexts. Additionally, the reliance on philosophical and discourse analysis may limit generalizability. Therefore, future research should employ empirical approaches—such as qualitative ethnographic studies, longitudinal designs, and comparative cross-cultural analyses—to investigate how AI shapes moral intentionality, relational dynamics, and spiritual engagement in practice. Expanding research across varied contexts and integrating design-based methodologies will be essential to develop more comprehensive and policy-relevant insights into ethical AI integration in education..

REFERENCES

- Abrori, M. S., & Nurkholis, M. (2019). Islamisasi Ilmu Pengetahuan Menurut Pandangan Syed Muhammad Naquib Al-Attas Dan Implikasinya Terhadap Pengembangan PAI Di Perguruan Tinggi Umum. *Al-I'tibar: Jurnal Pendidikan Islam*, 6(1), 09–18. <https://doi.org/10.30599/jpia.v6i1.419>
- Aisah, Asy'ari, H., & Rofiq, M. H. (2025). The Role of Islamic Religious Education Teachers in Fostering the Habit of Congregational Prayer for Students. *Journal of Education and Learning Innovation*, 2(1), 16–26. <https://doi.org/10.59373/jelin.v2i1.94>
- al-Attas, M. N. (1999). *The Concept Of Education In Islam A Framework For An Islamic Philosophy Of Education by Syed Muhammad Naquib al-Attas*.
- Al-Attas Septy Oktavia, N., Try Syafrielia, D., Nisa Alhabibah, K., Qotrun Nandini, L., & Ilmu Pengetahuan Alam, P. (XXXX). *Inklusi Teologi: Antara Agama dan Teknologi dalam Perspektif*.
- Al-Ghazālī. (2013). *The Revival of the Religious Sciences*.
- Amilusholihah, A., & Ramadhan, N. J. H. (2025). Exploring The Implementation of Artificial Intelligence in Islamic Education: A Systematic Literature Review. *Ngaji: Jurnal Pendidikan Islam*, 5(1), 3–17. <https://doi.org/10.24260/NGAJI.V5I1.95>
- Arifin, S. (2024). Developing Aqidah Akhlak As Islamic Elementary School Teaching Material Supplement Based On Religious Moderation Values. *Fikroh: Jurnal Pemikiran Dan Pendidikan Islam*, 17(1), 67–81. <https://doi.org/10.37812/fikroh.v17i1.1419>
- Aziz, M., Napitupulu, D. S., & Parapat, F. A. (2025). The Influence of Teacher Communication Patterns in Aqidah Akhlak Education on Students' Academic Achievement. *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, 8(1), 71–86. <https://doi.org/10.54069/attadrib.v8i1.840>
- Badarussyamsi, B. (2023). Islamization of Science in Raji Al-Faruqi's Thought, between The Fundamentalism Reflection and Construction of New Epistemological Knowledge. *Ishlah: Jurnal Ilmu Ushuluddin, Adab Dan Dakwah*, 5(1), 109–132. <https://doi.org/10.32939/ishlah.v5i1.225>
- Biesta, G. J. J. (2015). *Beyond Learning: Democratic Education for a Human Future*. Democratic Education for a Human Future. <https://doi.org/10.4324/9781315635811/Beyond-Learning-Gert-Biesta/Rights-And-Permissions>
- Blunden, A. (XXXX). *Economic & Philosophic Manuscripts of 1844 1*.
- Bruinessen, M. van. (2012). *Kitab kuning, pesantren, dan tarekat: Tradisi-tradisi Islam di Indonesia*. <https://cir.nii.ac.jp/crid/1971430859756301107>
- Caridà, A., Colurcio, M., & Melia, M. (2022). Digital platform for social innovation: Insights from volunteering. *Creativity and Innovation Management*, 31(4), 755–771. <https://doi.org/10.1111/caim.12499>

- Chinmi, M., & Marta, R. F. (2020). RuangGuru as an Ideation of Interaction and Education Revolution during COVID-19 Pandemic in Indonesia. *Revista Romaneasca Pentru Educatie Multidimensionala*, 12(2Sup1), 118–129. <https://doi.org/10.18662/RREM/12.2SUP1/297>
- Choiriyah, S., Ramadhan, S., Nugroho, A., Pembangunan, H. R. P., & Muharom, F. (2025). Artificial intelligence-driven learning assessment in faculties of education: An exploratory study. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 6(3), 482–495. <https://doi.org/10.31538/munaddhomah.v6i3.1937>
- Comparing Neo-Liberal Projects and Inequality in Education on JSTOR*. (XXXX). <https://www.jstor.org/stable/3099552>
- Crompton, H., & Burke, D. (2023). Artificial intelligence in higher education: The state of the field. *International Journal of Educational Technology in Higher Education*, 20(1), 22-. <https://doi.org/10.1186/S41239-023-00392-8/FIGURES/11>
- Cukurova, M., Kent, C., & Luckin, R. (2019). Artificial intelligence and multimodal data in the service of human decision-making: A case study in debate tutoring. *British Journal of Educational Technology*, 50(6), 3032–3046. <https://doi.org/10.1111/BJET.12829>
- Dhofier, Z. (2011). *Role of Kyai in Development of Islam and Islamic Education in Java*. https://books.google.com/books/about/Tradisi_pesantren.html?hl=id&id=0wZKtwAACAAJ
- Dianto, I., Nasution, L. A., & Rafiq, M. (2025). Netizens' Communication Ethics on Instagram in Islamic Perspective. *Communicator: Journal of Communication*, 2(1), 27–46. <https://doi.org/10.59373/comm.v2i1.98>
- Duschka, J. (2024). *56 Talal Asad: Formations of the Secular* (2003 (pp. 562–572)). <https://doi.org/10.1515/9783111254005-060>
- Evangelista, R. (2018). Review of Zuboff's *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. *Surveillance & Society*, 17(1/2), 246–251.
- Fairclough, N. (2013). Critical discourse analysis the critical study of language. In *Critical Discourse Analysis The Critical Study of Language* (second). <https://doi.org/10.4324/9781315834368>
- Fauziah, R. S. P., Purnomo, A. M., Firdaus, U., Nanyanto, A. B. D., & Roestamy, M. (2024). Promoting Islamic Value for Green Skill Development in Islamic Vocational High School. *Jurnal Pendidikan Islam*, 10(1), 53–62. <https://doi.org/10.15575/jpi.v10i1.35383>
- Feenberg, A. (2003). *Transforming technology: A critical theory revisited*. <https://global.oup.com/academic/product/transforming-technology-9780195146158>
- Ganguli, A., Ornob, A., Spegazzini, N., Liu, Y., Damhorst, G., Ghonge, T., Thornton, B., Konopka, C. J., Dobrucki, W., Clare, S. E., Bhargava, R., Smith, A. M., Kosari, F., & Bashir, R. (2018). Pixelated spatial gene expression analysis from tissue. *Nature Communications*, 9(1), 202. <https://doi.org/10.1038/s41467-017-02623-9>
- Giroux, H. A. (2011). *On Critical Pedagogy*. Continuum International Publishing Group.
- Halstead, J. M. (2004). An Islamic concept of education. *Comparative Education*, 40(4), 517–529. <https://doi.org/10.1080/0305006042000284510>
- Harmsen, E., Warnk, H., Südoastien, N., Schulze, F., Schulze, F., Ahmad, R., Albasri, S. H., Arsad, S., Said, R., Branch, M., Society, R. A., Branch, M., Society, R. A., Arifin, A. Z., Muchlis Gazali, H., Che Ismail, C. M. H., Gazali, H. M., & Che Ismail, C. M. H. (2019). Transmission Of Islamic Knowledge In Kelantan Author (s): Muhamad Ali Source. *Journal of the Malaysian Branch of the Royal Asiatic Society*, 79, 215–221.
- Hastuty, A., Maswati, M., Saharuddin, M., Sukri, A. M., & Halik, A. (2025). Artificial intelligence: A review of the philosophy of Islamic educational science. *Journal of Research in Instructional*, 5(1), 90–102. <https://doi.org/10.30862/jri.v5i1.573>
- Heidegger, M., & Lovitt, W. (2013). *The question concerning technology, and other essays* (p. 182).

- Indasari, N. L. (2026). Modelling Acceptance of Artificial Intelligence Technology among Pre-service Teachers in Islamic Higher Education. *At-Tadzkir: Islamic Education Journal*, 5(1), 22–39. <https://doi.org/10.59373/attadzkir.v5i1.241>
- Jogezai, N. A., Koroleva, D., & Ivanov, I. (2025). Generative artificial intelligence in higher education: Challenges, opportunities and future course of actions to achieve sustainable development goals. *International Journal of Educational Management*, 1–25. <https://doi.org/10.1108/IJEM-12-2024-0786>
- Kartini, E., & Putra, D. (2024). Kinerja kepala sekolah dalam meningkatkan kompetensi profesional guru di madrasah aliyah mahdaliyah kota jambi. *Attaqwa: Jurnal Ilmu Pendidikan Islam*, 20(1), 37–45. <https://doi.org/10.54069/attaqwa.v20i1.330>
- Kasman, R., Madjid, A., & Muhammadiyah Yogyakarta, U. (2024). Opportunities and Challenges of Artificial Intelligence and Their Implications in Islamic Education. *Intiqad: Jurnal Agama Dan Pendidikan Islam*, 16(1), 1–13. <https://doi.org/10.30596/19308>
- Khastgir, P., & Shalini, S. (2024). Applying diverse AI tools to transform philanthropic operations: Insights from the for-profit sector. In *The Routledge Handbook of Artificial Intelligence and Philanthropy*. Routledge.
- Knox, J. (2024). AI and education in China: Imagining the future, excavating the past. Routledge. <https://www.routledge.com/AI-and-Education-in-China-Imagining-the-Future-Excavating-the-Past/Knox/p/book/9781032450445>
- Li, M. (2025). Integrating Artificial Intelligence in Primary Mathematics Education: Investigating Internal and External Influences on Teacher Adoption. *International Journal of Science and Mathematics Education*, 23(5), 1283–1308. <https://doi.org/10.1007/s10763-024-10515-w>
- Lodge, J. M., Ellerton, P., Zaphir, L., & Brown, D. (2024). Assessing in the Age of AI: Is Critical Thinking the Answer? In *Artificial Intelligence Applications in K-12*. Routledge.
- Mardatillah, F., Gumilang, R. M., Wahyudi, M. A., Rawanita, M., & Muhammad, M. (2025). Epistemological Reconstruction of Islamic Education: Developing a Transformative Pedagogical Model to Foster Creativity. *Jurnal Ilmiah Peuradeun*, 13(2), 1071–1094. <https://doi.org/10.26811/PEURADEUN.V13I2.2200>
- Masruhin, S., Isma, A., & Badarussyamsi, B. (2023). Kyai Leadership in the Development of Ecological System Theory in Islamic Boarding Schools. *Al-Miskawaih: Journal of Science Education*, 2(2), 373–390. <https://doi.org/10.56436/MIJOSE.V2I2.295>
- Maulana, M. A. (n.d.). Pendidikan Karakter di Era Viralitas: Strategi Sekolah dalam Menumbuhkan Empati dan Etika Digital. *Edutrans: Jurnal Pendidikan Islam Transformatif*, 1(1), 25–39. <https://doi.org/10.54069/17xqng98>
- Meyer, C. L., Surmeli, A., Hoeflin Hana, C., & Narla, N. P. (2022). Perceptions on a mobile health intervention to improve maternal child health for Syrian refugees in Turkey: Opportunities and challenges for end-user acceptability. *Frontiers in Public Health*, 10, 1025675. <https://doi.org/10.3389/FPUBH.2022.1025675/BIBTEX>
- Muttaqin, I., Tuah, D. bin, Zaini, M., Rianawati, R., Zurayah, H., & Suhaimi, S. (2025). Competitive Advantage Management of Madrasah In the Artificial Intelligence Era. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 6(4), 661–680. <https://doi.org/10.31538/munaddhomah.v6i4.2292>
- Picon, A. (2021). *The Materiality of Architecture*. *The Materiality of Architecture*. <https://doi.org/10.5749/J.CTV1DWQ1VQ>
- Powers of the Secular Modern: Talal Asad and His Interlocutors* 9780804767798 — DOKUMEN.PUB. (n.d.). [(N.d.)]. Retrieved <https://dokumen.pub/powers-of-the-secular-modern-talal-asad-and-his-interlocutors-9780804767798.html>
- Pranoto, B. A., & Haryanto, B. (2024). Shaping Ethical Digital Citizens through Islamic Education. *Indonesian Journal of Islamic Studies*, 12(4). <https://doi.org/10.21070/ijis.v12i4.1740>

- Qolbi, S. K. (2025). Pengembangan Evaluasi Pembelajaran PAI di Era Modern pada kampus Politeknik Berbasis Pemikiran Imam Al Ghazali. *At-Tadzkir: Islamic Education Journal*, 4(1), 93–109. <https://doi.org/10.59373/attadzkir.v4i1.210>
- Raab, N. A. (2020). *The Humanities in Transition from Postmodernism into the Digital Age. The Humanities in Transition from Postmodernism into the Digital Age.* <https://doi.org/10.4324/9781003020493>
- Rakhmat, A. (2023). Religion and Reason in Contemporary Islamic Ethics: A Comparative Study of Syed Muhammad Naquib al-Attas and Taha Abderrahmane Thought. *Journal of Islamic Thought and Civilization*, 13(2), 134–151. <https://doi.org/10.32350/jitc.132.09>
- Reich, J., & Ito, M. (XXXX). *FROM GOOD INTENTIONS TO REAL OUTCOMES Equity by DEsign in LEarning tEchnoLogiEs The Digital Media + Learning Research Hub Report Series on Connected Learning.*
- Roy, M. (2017). Cathy O’Neil. Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy. *Hardcover*, 26, 403. <https://doi.org/10.5860/crl.78.3.403>
- Salim, M. A., & Aditya, R. B. (2025). Integration of Artificial Intelligence in Islamic Education: Trends, Methods, and Challenges in the Digital Era. *Journal of Modern Islamic Studies and Civilization*, 3(01), 74–89. <https://doi.org/10.59653/jmisc.v3i01.1368>
- Sarbini, S., Suhendi, S., Santora, P., Nurhayati, F., Rosulina, D., Muttaqien, Q. H., & Astuti, H. (2025). Internalisasi Akhlak Islam melalui Pendekatan Psikologi dalam Pembelajaran: Internalizing Islamic Morals through a Psychological Approach in Learning. *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, 8(3), 668–678. <https://doi.org/10.54069/attadrib.v8i3.1034>
- Sardar, Z. (2021). Critical Muslim Epistemologies: Postnormal Times and the Crisis of Knowledge. *Journal of Futures Studies.*
- Selwyn, N. (2019). *Should Robots Replace Teachers?: AI and the Future of Education.* https://www.politybooks.com/bookdetail?book_slug=should-robots-replace-teachers-ai-and-the-future-of-education--9781509528950
- Selwyn, N., Pangrazio, L., Nemorin, S., & Perrotta, C. (2020). What might the school of 2030 be like? An exercise in social science fiction. *Learning, Media and Technology*, 45(1), 90–106. <https://doi.org/10.1080/17439884.2020.1694944>
- Sholihah, M., Sunanto, Afifuddin, M. A., & Salik, M. (2026). The Unity of Knowledge in the Perspective of Syed Muhammad Naquib al-Attas: An Epistemological Analysis of Islamic Education. *At-Tadzkir: Islamic Education Journal*, 5(1), 62–81. <https://doi.org/10.59373/attadzkir.v5i1.252>
- Sodikin, S. (2024). Transformasi Pendidikan Agama Islam Melalui Artificial Intelligent (AI): Upaya Meningkatkan Kemampuan Berpikir Kritis Mahasiswa. *Academicus: Journal of Teaching and Learning*, 3(2), 78–89. <https://doi.org/10.59373/academicus.v3i2.65>
- Syukur, F., Maghfurin, A., Marhamah, U., & Jehwae, P. (2024). Integration of Artificial Intelligence in Islamic Higher Education: Comparative Responses between Indonesia and Thailand. *Nazhruna: Jurnal Pendidikan Islam*, 7(3), 531–553. <https://doi.org/10.31538/nzh.v7i3.13>
- Tracy, S. J. (2010). Qualitative Quality: Eight “Big-Tent” Criteria for Excellent Qualitative Research. *Qualitative Inquiry*, 16(10), 837–851. <https://doi.org/10.1177/1077800410383121>
- Tsourlaki, S. (2020). Khaled Abou El Fadl and Amina Wadud’s (re)politicisation of the mosque and employment of social media as a means of shaping religious identity based on values of progressive Islam. *Contemporary Islam*, 14(3), 309–329. <https://doi.org/10.1007/s11562-020-00453-z>
- Utami, R., Ajizah, N., Su’aidi, Z., & Huda, M. (2025). Artificial Intelligence in Islamic Studies and Academic Ethics: Perspectives on Development and Implementation Based on Islamic

- Values. *Tarbawi Ngabar: Jurnal of Education*, 6(1), 147–168. <https://doi.org/10.55380/TARBAWI.V6I1.985>
- Williamson, B., Eynon, R., & Potter, J. (2020). Pandemic politics, pedagogies and practices: Digital technologies and distance education during the coronavirus emergency. *Learning, Media and Technology*, 45(2), 107–114. <https://doi.org/10.1080/17439884.2020.1761641>
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators? *International Journal of Educational Technology in Higher Education*, 16(1), 39. <https://doi.org/10.1186/s41239-019-0171-0>