
Artificial Intelligence in Islamic Education: Ethical and Legal Challenges from the Perspective of Islamic Law and Indonesian Positive LawArifuddin Muda Harahap¹ Abdullah Madoni Hasibuan²

Fakultas Syariah & Hukum, UINSU

Fakultas Syariah & Hukum, UINSU

Email: arifuddinmudahrp@uinsu.ac.id donihasibuan404@gmail.com

Info Articles	Abstract
Article History Received : 20-09-2026 Revised : 28-09-2026 Published: 09-10-2026 Keywords: <i>Artificial Intelligence; Islamic Education; Academic Integrity; Maqasid al-Shari'ah; Educational Law; Teacher Authority; Personal Data</i>	<i>Generative systems are now used in Indonesian madrasah, pesantren, and Islamic higher education to prepare lessons, answer religious questions, draft assignments, and assess students, while education law says nothing about them and the general artificial intelligence instruments are either non-binding or not designed for schools. This study maps the uses and risks of artificial intelligence in Islamic education, examines academic integrity and the teacher's authority through Islamic legal categories, assesses the Indonesian legal framework, and formulates an ethical and legal framework for adoption. The research is normative juridical and doctrinal, using statutory and conceptual approaches with comparative reference to international instruments, supported by classical doctrine on trust, deception, and the transmission of knowledge, and by maqasid reasoning. The risks cluster in four areas: the integrity of assessment, the reliability of religious content, the displacement of the formative relation between teacher and student, and the processing of minors' data. Indonesian education regulation addresses none of them directly; the personal data statute applies but has not been translated for schools; artificial intelligence instruments remain guidance or drafts. Classical doctrine supplies precise criteria: submitting generated work as one's own is deception; a system cannot bear the responsibility that authorisation to teach presupposes; and the formation of character cannot be delegated. Education authorities should issue binding guidance on disclosure and assessment design, classify religious guidance systems used with minors as high-risk, and require institutions to assume controller duties for the tools they adopt.</i>

I. INTRODUCTION

Generative systems entered Indonesian classrooms without waiting for permission. Students use them to draft essays, summarise readings, and solve problems; teachers use them to prepare lesson plans, generate questions, and mark work; institutions experiment with them for administration and for tutoring. In Islamic education the same systems are also used for something more delicate: to answer questions of ritual and law, to translate and explain classical texts, and to produce material that is then presented to learners as religious instruction.

Indonesian law has almost nothing to say about this. Education legislation, drafted long before these systems existed, regulates curriculum, standards, teachers, and assessment without reference to automated assistance.¹ The general framework for artificial intelligence consists of a ministerial circular stating ethical

¹ Republic of Indonesia, Law No. 20 of 2003 concerning the National Education System, Articles 35–38 and 58; Government Regulation No. 57 of 2021 concerning National Education Standards, as amended by Government Regulation No. 4 of 2022, Articles 11–14 and 42–47.

values, which is guidance rather than obligation, and two draft presidential regulations that had completed inter-ministerial deliberation and were awaiting promulgation at the time of writing.² The instruments that do bind the legislation on electronic information and transactions and on personal data protection apply to schools as they apply to anyone, but they were not designed for the educational relationship and have not been elaborated for it.³

The Islamic educational tradition, by contrast, has a great deal to say, though it has not yet been asked in the right form. That tradition treats knowledge as something transmitted through a relationship in which comprehension is verified and character is formed, and it attaches the authority to teach to a person who is answerable for what is attested.⁴ It treats deception in the presentation of one's attainment as a wrong of a specific kind rather than as a breach of institutional rules.⁵ And it locates the purposes of education in the protection of intellect and of religion, which supplies a criterion for judging whether a particular use of a system serves education or substitutes for it.⁶

Three problems make this more than a matter of school policy. The first is integrity. Where assessment measures the product of study rather than study itself, generative systems make the measurement unreliable, and the response adopted in many institutions detection software of contested accuracy creates its own injustice by exposing students to accusations they cannot rebut. The second is reliability in religious content. Generative systems produce fluent text with confident citations, including citations that do not exist, and in religious subjects the reader least able to detect error is precisely the learner. The third is the displacement of the teacher. If instruction is understood as the delivery of information, a system can deliver it; if it is understood as formation, the substitution is a category error with consequences that appear slowly.

Scholarship on artificial intelligence in education has grown rapidly, concentrating on pedagogy and on academic integrity policy. Islamic scholarship has begun to address the permissibility of particular applications. What is largely absent is legal analysis: an examination of where Indonesian education law, data protection law, and the emerging artificial intelligence framework leave institutions, teachers, and learners, and of what the classical categories contribute to filling the gaps.⁷

² Circular Letter of the Minister of Communication and Informatics No. 9 of 2023 concerning Artificial Intelligence Ethics; Kementerian Komunikasi dan Digital, "Pemerintah Bahas Peta Jalan Kecerdasan Artifisial Indonesia 2026–2029 dalam Rapat Lintas Kementerian," 11 February 2026, <https://jdih.komdigi.go.id/berita/view/113>.

³ Law No. 11 of 2008 concerning Electronic Information and Transactions, as amended by Law No. 19 of 2016 and Law No. 1 of 2024; Law No. 27 of 2022 concerning Personal Data Protection, Articles 16, 20–26, and 25.

⁴ George Makdisi, *The Rise of Colleges: Institutions of Learning in Islam and the West* (Edinburgh: Edinburgh University Press, 1981), 140–52.

⁵ Mohammad Hashim Kamali, *Shari'ah Law: An Introduction* (Oxford: Oneworld, 2008), 191–200.

⁶ Abū Ishāq al-Shātibī, *al-Muwāfaqāt fī Uṣūl al-Sharī'a* (Cairo: Dār Ibn 'Affān, 1997), 2:17–25.

⁷ Compare the general ethical values in Circular Letter No. 9 of 2023 with the absence of any educational provision in Government Regulation No. 57 of 2021 as amended.

This article asks four questions. First, how are artificial intelligence systems used in Indonesian Islamic education, and what risks does each use generate? Second, what does Islamic legal doctrine say about academic integrity, about the reliability of religious content, and about the limits of delegating the teacher's function? Third, how adequate is the Indonesian legal framework? Fourth, what ethical and legal framework should govern adoption?

II. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

The classical theory of knowledge transmission supplies the first framework. Al-Ghazālī treated the acquisition of knowledge as a transformation of the learner rather than an accumulation of information, and made the relation with the teacher constitutive of that transformation; al-Zarnūjī and Ibn Jamā'ah elaborated the reciprocal duties of teacher and student, including the student's duty of effort and the teacher's duty of verification.⁸ The institutional expression of this theory was the system of authorisation studied by historians of Islamic education, in which the credential attached to an identified teacher who assumed responsibility for attesting the student's comprehension.⁹ Two implications follow for the present subject: the tradition already distinguished between exposure to text and verified learning, and it already located responsibility in a person rather than in a procedure.

The second framework is the doctrine of deception and trust. Islamic law treats the misrepresentation of the quality of what one offers as a distinct wrong, and the concealment of a defect or the creation of a false impression in a transaction is prohibited independently of any harm that follows; the general condemnation of deceiving others in the report of the Prophet's disavowal of one who deceives is the locus classicus.¹⁰ Applied to assessment, presenting generated work as the product of one's own study is not merely a breach of institutional regulation but a misrepresentation to the institution, to future employers, and, in religious subjects, to a community that will rely on the qualification. The doctrine of trust adds the institutional dimension: a school that certifies attainment holds a trust toward those who rely on its certificates.¹¹

The theory of purposes supplies the third framework. Education protects intellect, and the protection of intellect is served by the development of the capacity to reason, not by the availability of answers.¹² This distinction is the substantive criterion this article uses: a use of an automated system that develops the learner's

⁸ Abū Ḥāmid al-Ghazālī, *Iḥyā' 'Ulūm al-Dīn* (Beirut: Dār al-Ma'rifa, n.d.), 1:15–30; Burhān al-Dīn al-Zarnūjī, *Ta'lim al-Muta'allim Ṭarīq al-Ta'allum* (Beirut: al-Maktab al-Islāmī, 1981), 13–28; Badr al-Dīn Ibn Jamā'ah, *Tadhkirat al-Sāmi' wa al-Mutakallim fī Adab al-Ālim wa al-Muta'allim* (Beirut: Dār al-Kutub al-Ilmiyya, 2005), 45–63.

⁹ Makdisi, *The Rise of Colleges*, 140–52; Jonathan P. Berkey, *The Transmission of Knowledge in Medieval Cairo: A Social History of Islamic Education* (Princeton: Princeton University Press, 1992), 21–43.

¹⁰ Kamali, *Shari'ah Law*, 191–200.

¹¹ Mohammad Hashim Kamali, *Principles of Islamic Jurisprudence*, 3rd ed. (Cambridge: Islamic Texts Society, 2003), 442–50.

¹² al-Shāṭibī, *al-Muwāfaqāt*, 2:17–25; Syed Muhammad Naquib al-Attas, *The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education* (Kuala Lumpur: ISTAC, 1991), 13–28.

capacity serves the purpose; a use that substitutes for it defeats the purpose while appearing to serve it. Auda's insistence that purposefulness be assessed systemically rather than formally supports evaluating tools by their effect on the learner over time rather than by their immediate output.¹³

The fourth framework is legal and comparative. The European risk-based regulation classifies systems used in education for admission, assessment, and monitoring as high-risk and subjects them to requirements of documentation, accuracy, human oversight, and transparency, and it imposes disclosure duties on systems that generate content.¹⁴ The UNESCO recommendation on the ethics of artificial intelligence articulates proportionality, human oversight, and accountability as general principles.¹⁵ Indonesian instruments have drawn on these sources in the ministerial circular, but in a form that does not bind.¹⁶

The gap addressed here lies between these literatures. Educational research evaluates effectiveness; Islamic scholarship evaluates permissibility; comparative law describes foreign regimes. No study connects the classical categories of deception, trust, and authorisation to the specific legal questions that Indonesian Islamic educational institutions now face, and none identifies which Indonesian instrument should carry the resulting obligations.

III. RESEARCH METHOD

This study is normative juridical research, doctrinal in technique and prescriptive in orientation.¹⁷ It reconstructs the applicable norms, evaluates their adequacy against a constructed risk map, and proposes a framework.

The statutory approach examines the national education statute and standards, the statute on teachers and lecturers, the statute on pesantren, the legislation on electronic information and on personal data, the ministerial circular on artificial intelligence ethics, and the constitutional provisions governing the limitation of rights. The conceptual approach clarifies the relations among assistance, substitution, assessment, and attestation. The comparative approach is functional: the European risk classification and the UNESCO principles are examined as solutions to the problem of governing automated systems in education, not as models for transplantation.¹⁸ Islamic legal methodology is applied internally, with the doctrines of deception, trust, and authorisation supplying the normative criteria and *maqāṣid al-sharīʿa* supplying the standard of evaluation.

Primary legal materials comprise the 1945 Constitution, particularly Articles 28J and 31; Law No. 20 of 2003 concerning the National Education System; Law

¹³ Jasser Auda, *Maqasid al-Shariah as Philosophy of Islamic Law: A Systems Approach* (London: International Institute of Islamic Thought, 2008), 45–55.

¹⁴ Regulation (EU) 2024/1689 of the European Parliament and of the Council laying down harmonised rules on artificial intelligence, Articles 6 and 50 and Annex III, point 3.

¹⁵ UNESCO, *Recommendation on the Ethics of Artificial Intelligence* (Paris: UNESCO, 2021), paras. 25–33.

¹⁶ Circular Letter of the Minister of Communication and Informatics No. 9 of 2023.

¹⁷ Peter Mahmud Marzuki, *Penelitian Hukum*, rev. ed. (Jakarta: Kencana, 2017), 55–60.

¹⁸ Konrad Zweigert and Hein Kötz, *An Introduction to Comparative Law*, 3rd ed., trans. Tony Weir (Oxford: Clarendon Press, 1998), 34–47.

No. 14 of 2005 concerning Teachers and Lecturers; Law No. 12 of 2012 concerning Higher Education; Law No. 18 of 2019 concerning Pesantren; Law No. 11 of 2008 concerning Electronic Information and Transactions as amended by Law No. 19 of 2016 and Law No. 1 of 2024; Law No. 27 of 2022 concerning Personal Data Protection; Government Regulation No. 57 of 2021 concerning National Education Standards as amended by Government Regulation No. 4 of 2022; Circular Letter of the Minister of Communication and Informatics No. 9 of 2023 concerning Artificial Intelligence Ethics; and, comparatively, Regulation (EU) 2024/1689 and the UNESCO Recommendation on the Ethics of Artificial Intelligence. Secondary materials are peer-reviewed articles, monographs, and classical works.

The analysis maps uses and risks, applies the Islamic legal categories, assesses the Indonesian framework, and formulates a framework of adoption. The study does not generate empirical data on the prevalence of use in Indonesian institutions; its risk analysis proceeds from the structural features of the technology and of the educational relationship.

IV. RESULTS AND DISCUSSION

A. Uses and Risks in Islamic Education

The first finding is that the uses of automated systems in Islamic education fall into four groups whose risk profiles differ, and that treating them as a single phenomenon produces policy that is simultaneously too permissive and too restrictive.

Preparation and administration. Teachers generate lesson plans, question banks, translations, and summaries; institutions automate scheduling, correspondence, and reporting. The risks here are modest and familiar: inaccuracy, which the teacher can check, and data exposure, which procurement can address.

Tutoring and explanation. Students use systems to explain material, including classical texts. The risks are inaccuracy that the learner cannot detect and, more subtly, the substitution of explanation for the effort through which comprehension is achieved.

Assessment and evaluation. Systems generate, mark, and in some cases rank student work. The risks concern accuracy, contestability, and the processing of behavioural data about minors; these are the uses that the European regulation classifies as high-risk.¹⁹

Religious guidance. Systems answer questions of ritual, belief, and law, and generate sermons and lesson material presented as religious instruction. The risks here are of a different order: inaccuracy in religious content is not corrected by the user's judgment, because the user consults precisely because the judgment is lacking, and the output carries no author who can be questioned.

Two cross-cutting features shape all four uses. The first is opacity: the basis on which a system produces an answer is not available to the user, which means that neither teacher nor learner can assess reliability from the output itself, and confidence in the text is a poor guide to its accuracy. The second is asymmetry of

¹⁹ Regulation (EU) 2024/1689, Annex III, point 3.

expertise: the users least able to evaluate output are those with least prior knowledge, which in an educational setting is precisely the population the institution exists to serve. Together these features explain why the usual remedy of user judgment fails here and why institutional measures are required.

B. Academic Integrity as Deception and Trust

The second finding reframes academic integrity. Indonesian institutions generally treat the undisclosed use of generative systems as a disciplinary matter governed by academic regulations. Islamic legal doctrine supplies a more precise and more demanding characterisation.

Presenting generated work as one's own is a misrepresentation of the quality of what is offered. The classical prohibition of deception applies to the presentation of a thing as other than it is, and it does not require that the deceived party suffer measurable loss.²⁰ The wrong is therefore complete at the moment of submission, regardless of whether detection occurs and regardless of whether the grade obtained is accurate. This characterisation is more exacting than institutional rules that focus on penalty and detection, and it addresses the student's own reasoning rather than the probability of being caught.

The institution's position is governed by trust. A school or university that issues a certificate attests to attainment, and those who rely on the certificate employers, further institutions, and in religious subjects a community rely on the attestation.²¹ It follows that an institution which knows that its assessment methods no longer measure attainment, and continues to certify on that basis, is in breach of the trust it holds, independently of any student's conduct. The practical implication is that the principal institutional response to generative systems should be the redesign of assessment so that it measures what the certificate claims, rather than the deployment of detection tools whose accuracy is contested and whose errors fall on students who cannot disprove an accusation.

Three concrete rules follow. Disclosure should be required and specified: institutions should state which uses are permitted, and students should record what assistance was used. Assessment should include components performed under conditions the institution controls, particularly where the certificate carries external consequences. And accusations based on detection output should not be actionable without corroboration, since a probabilistic score is not evidence of conduct.

A practical objection deserves an answer. It is sometimes said that redesigning assessment is unrealistic for institutions with large classes and limited staff, and that detection tools are the only affordable response. The objection has force as a description of constraints but not as a justification. Where resources genuinely prevent the redesign of every assessment, the coherent response is to reduce the weight given to the assessments that can no longer measure attainment, and to concentrate resources on those that carry external consequences final examinations, certification of religious competence, theses — rather than to certify

²⁰ Kamali, *Shari'ah Law*, 191–200.

²¹ Kamali, *Principles of Islamic Jurisprudence*, 442–50.

on a basis known to be unreliable. The trust the certificate embodies is owed to those who rely on it, and resource constraints do not transfer that burden to them.

C. The Teacher's Authority and What Cannot Be Delegated

The third finding concerns the limits of substitution, and here the classical tradition is unusually precise.

The authority to teach, in the tradition, rested on authorisation by a person who assumed responsibility for what was attested.²² Three elements of that structure cannot be reproduced by a system. The first is responsibility: a system cannot answer for error, and the attribution of its output to no one removes the feature that made an opinion assessable. The second is verification: the teacher attested comprehension on the basis of interaction, which a system may simulate but cannot underwrite. The third is formation: the tradition treated the cultivation of character as part of what the teacher transmits, communicated by example rather than by statement, and this cannot be delegated to an instrument at all.²³

Two conclusions follow, and they cut in opposite directions. Automated systems are legitimate instruments in Islamic education, as books, recordings, and translations have been; there is no principled objection to their use for preparation, retrieval, translation, and drafting, and a blanket prohibition would be neither enforceable nor justified. But a system may not stand in the position of the teacher for the purposes of attestation or of religious guidance addressed to learners. The practical line is therefore not between permitted and prohibited technologies but between assistance and substitution, and it can be drawn by asking who is answerable for what the learner receives.

This analysis also bears on the generation of religious content for instructional use. Where a teacher uses a system to draft material and then verifies it, the teacher remains answerable and the practice is unobjectionable. Where material is generated and delivered without verification, the institution has allowed religious instruction to be given by no one, which no reading of the tradition supports.

A further question concerns the teacher's own use of these systems. The statute on teachers and lecturers imposes obligations of professional competence and of acting in accordance with professional standards.²⁴ A teacher who delivers unverified generated material is not merely making a pedagogical error but failing a professional obligation, and institutional regulation should say so. Conversely, a teacher who uses such systems to prepare, translate, and draft, and who verifies the result, is exercising professional judgment in the ordinary way, and institutional policy should not treat that use as suspect. Framing the obligation in terms of verification and answerability, rather than in terms of permitted and prohibited tools, aligns the professional duty with the doctrinal analysis set out above.

²² Makdisi, *The Rise of Colleges*, 140–52.

²³ al-Attas, *The Concept of Education in Islam*, 13–28; al-Ghazālī, *Iḥyā' 'Ulūm al-Dīn*, 1:15–30.

²⁴ Law No. 14 of 2005 concerning Teachers and Lecturers, Articles 8–11 and 20.

D. The Indonesian Legal Framework and Its Gaps

The fourth finding is that Indonesian law leaves institutions without guidance at precisely the points where the risks are greatest.

Education legislation and the national standards regulate curriculum, process, assessment, and teacher qualification, but contain no provision addressed to automated assistance in learning or assessment.²⁵ Institutions therefore act on their own academic regulations, which produces inconsistency between institutions and, within Islamic education, between institutions supervised by different ministries.

The personal data statute applies and is the most relevant binding instrument. A school that adopts a tool and determines the purposes for which student data is processed is a controller with the corresponding obligations, and the statute imposes specific requirements where children's data is processed and confers a right to object to decisions based solely on automated processing.²⁶ This last provision is significant for assessment: a decision affecting a student taken solely by an automated system is exposed to objection, which means that human review of automated marking is not merely good practice but the safer legal position. None of this has been elaborated for schools, and school leaders have received no guidance on assessing tools before adoption.

The artificial intelligence framework remains guidance. The ministerial circular states ethical values; the draft presidential regulations were awaiting promulgation at the time of writing.²⁷ Even once promulgated, a presidential regulation faces a constitutional ceiling, since the limitation of rights must be established by statute, which constrains the obligations such an instrument can impose on private providers.²⁸

Risk	Relevant instrument	Status
Assessment integrity	Institutional regulation only	No national rule
Automated marking and ranking	Personal data statute	Applies, not elaborated
Children's data in educational tools	Personal data statute	Applies, no school guidance
Reliability of religious content	None	Unaddressed
General AI governance	Ministerial circular; draft regulations	Guidance or pending

Table 1. Indonesian instruments and the risks of artificial intelligence in education

E. The Distinctive Position of Pesantren and Madrasah

The analysis to this point applies to Islamic education generally. Three features of the Indonesian institutional landscape require separate attention, because they change what a workable policy looks like.

²⁵ Law No. 20 of 2003, Articles 35–38 and 58; Government Regulation No. 57 of 2021 as amended, Articles 42–47; Law No. 14 of 2005 concerning Teachers and Lecturers, Articles 8–11.

²⁶ Law No. 27 of 2022, Articles 10, 16, 20–26, and 25.

²⁷ Circular Letter No. 9 of 2023; Kementerian Komunikasi dan Digital, “Pemerintah Bahas Peta Jalan Kecerdasan Artifisial Indonesia 2026–2029.”

²⁸ The 1945 Constitution of the Republic of Indonesia, Article 28J(2).

The first is infrastructure. Many madrasah and pesantren operate with limited connectivity, shared devices, and teachers whose training in digital tools is minimal. A policy that assumes institutional capacity to evaluate tools, negotiate terms, and configure settings will not be implemented in such institutions; it will simply be ignored, and the resulting practice will be determined by whichever free service is most convenient. Guidance for these institutions must therefore be prescriptive rather than principled: a short list of assessed tools, default configurations, and model terms would protect more learners than an elegant framework requiring institutional judgment that does not exist.

The second is the residential character of pesantren. Where learners live in the institution, the boundary between instruction and private life is thin, and the introduction of systems that observe, record, or advise operates across the whole of a young person's day. The duty of the institution as holder of a trust is correspondingly wider, and the case for limiting data collection is stronger than in a day school.

The third is the centrality of the teacher-student relation in the pesantren tradition. The transmission of classical texts under supervision, and the formation of character through sustained contact, are the features by which these institutions define themselves. A technology that reduces the time teachers spend with learners, even while improving measured outcomes, subtracts from what the institution exists to provide. This is not an argument against adoption; it is an argument that the institutions concerned, rather than technology providers or central authorities, should determine which functions are delegated and which are not.

Taken together, these features support a differentiated policy: prescriptive support for institutions with limited capacity, stricter data limits in residential settings, and institutional autonomy over the delegation of formative functions.

F. An Ethical and Legal Framework for Adoption

The findings support a framework of four criteria, addressed to institutions and to the authorities that supervise them.

Assistance, not substitution. A system may support the learner's effort and the teacher's preparation; it may not replace the effort through which comprehension is achieved or the person who is answerable for attestation and for religious guidance. Institutional policies should be written in these terms rather than as lists of permitted applications, which age immediately.

Answerability for what the learner receives. Where material generated by a system is delivered to learners as instruction, an identified educator must have verified it and must be answerable for it. Where a decision about a learner is informed by a system, a human must review it, which the data statute's right to object already supports.

Proportionate protection of the learner's data. Institutions should assess tools before adoption, limit collection to the educational purpose, prohibit commercial use of behavioural records, and confine retention to the educational relationship. This is the concrete content of the controller obligations the statute already imposes.

Special treatment of religious guidance systems. Systems that answer religious questions and are used with minors should be classified as high-risk by analogy with the treatment of educational systems in comparative regulation: disclosure that the

output is machine-generated, documentation of sources, and institutional review before use in instruction.

Criterion	Addressee	Instrument
Assistance, not substitution	Institutions	Ministerial guidance; academic regulation
Answerability for content and decisions	Educators and institutions	Ministerial regulation
Proportionate data protection	Institutions as controllers	Data protection implementing rules
Religious guidance systems as high-risk	Providers and institutions	Statute and sectoral regulation

Table 2. Framework for the adoption of artificial intelligence in Islamic education

G. Objections and Limits

Three objections should be addressed directly.

The first is that any line between assistance and substitution will be unstable, since systems improve and yesterday's substitution becomes today's routine assistance. The objection is sound as a prediction and irrelevant as a criticism. The line proposed here is not drawn by capability but by answerability: whatever a system can do, an identified person must remain answerable for what the learner receives and for what is attested. That criterion does not shift as capability grows.

The second is that requiring verification of generated material imposes work that defeats the purpose of using the system. In some cases this is true, and the correct conclusion is that the system should not be used for that purpose. Where verification costs as much as composition, the tool has not saved effort but transferred it to a stage where it is less likely to be performed. Recognising this openly is better policy than pretending that unverified material is acceptable because checking it is inconvenient.

The third is that a restrictive approach will disadvantage Indonesian learners relative to those elsewhere, since fluency with these systems is itself becoming a competence. This deserves weight. Nothing in the analysis argues for restricting learners' access to these tools; the argument is about assessment, attestation, and religious guidance. Teaching learners to use such systems critically including teaching them to detect fabricated citations, a skill of obvious value in religious study is entirely consistent with the framework and should form part of the curriculum.

A limitation must also be stated. The risk analysis here proceeds from the structural features of the technology and of the educational relation, not from measurement of what Indonesian institutions actually do. Calibrating obligations proportionately will require that evidence, and gathering it in madrasah and pesantren, rather than only in well-resourced urban institutions, is a precondition of regulation that fits the sector as it is.

V. CONCLUSION

Artificial intelligence is used in Indonesian Islamic education in four distinguishable ways preparation and administration, tutoring and explanation,

assessment, and religious guidance whose risk profiles differ sufficiently that a single policy for all of them will be simultaneously too permissive and too restrictive.

Islamic legal doctrine supplies criteria that current policy discussion lacks. Presenting generated work as one's own is a misrepresentation of the quality of what is offered, complete at the moment of submission and independent of detection; an institution that continues to certify on the basis of assessment it knows no longer measures attainment breaches the trust its certificate embodies; and the authority to teach rests on a person who is answerable, verifies comprehension, and forms character, of which none can be assumed by a system. These criteria yield a workable line between assistance, which is legitimate, and substitution, which is not.

The Indonesian framework does not reach these questions. Education legislation and standards are silent; the personal data statute applies but has not been translated for schools, even though it makes a school that adopts a tool a controller and gives students a right to object to decisions taken solely by automated means; and the artificial intelligence instruments are guidance or drafts, with a presidential regulation facing a constitutional ceiling on the obligations it can impose.

Four measures follow. Education authorities should issue binding guidance framed around assistance and substitution rather than around named technologies. Answerability should be required for material delivered to learners and for decisions taken about them, with human review of automated assessment. Institutions should be required to assess tools before adoption and to observe data minimisation and retention limits as protective obligations. And systems providing religious guidance to minors should be treated as high-risk, with disclosure of machine generation, documentation of sources, and institutional review before instructional use.

Further research should study how Indonesian madrasah and pesantren are actually using these systems, evaluate the reliability of generative output on Indonesian Islamic legal questions against authoritative sources, and develop assessment designs suited to institutions with limited technical infrastructure.

REFERENCES

- al-Attas, Syed Muhammad Naquib. *The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education*. Kuala Lumpur: ISTAC, 1991.
- Auda, Jasser. *Maqasid al-Shariah as Philosophy of Islamic Law: A Systems Approach*. London: International Institute of Islamic Thought, 2008.
- Berkey, Jonathan P. *The Transmission of Knowledge in Medieval Cairo: A Social History of Islamic Education*. Princeton: Princeton University Press, 1992.
- al-Ghazālī, Abū Ḥāmid Muḥammad. *Iḥyā' 'Ulūm al-Dīn*. Beirut: Dār al-Ma'rifa, n.d.
- Ibn Jamā'ah, Badr al-Dīn. *Tadhkirat al-Sāmi' wa al-Mutakallim fī Adab al-'Ālim wa al-Muta'allim*. Beirut: Dār al-Kutub al-'Ilmiyya, 2005.
- Kamali, Mohammad Hashim. *Principles of Islamic Jurisprudence*. 3rd ed. Cambridge: Islamic Texts Society, 2003.
- . *Shari'ah Law: An Introduction*. Oxford: Oneworld, 2008.

- Lessig, Lawrence. *Code: Version 2.0*. New York: Basic Books, 2006.
- Makdisi, George. *The Rise of Colleges: Institutions of Learning in Islam and the West*. Edinburgh: Edinburgh University Press, 1981.
- Marzuki, Peter Mahmud. *Penelitian Hukum*. Rev. ed. Jakarta: Kencana, 2017.
- al-Shāṭibī, Abū Ishāq. *al-Muwāfaqāt fī Uṣūl al-Sharīʿa*. Cairo: Dār Ibn ʿAffān, 1997.
- al-Zarnūjī, Burhān al-Dīn. *Taʿlīm al-Mutaʿallim Ṭarīq al-Taʿallum*. Beirut: al-Maktab al-Islāmī, 1981.
- Zweigert, Konrad, and Hein Kötz. *An Introduction to Comparative Law*. 3rd ed. Translated by Tony Weir. Oxford: Clarendon Press, 1998.

Legislation, Regulations, and International Instruments

- European Union. Regulation (EU) 2024/1689 of the European Parliament and of the Council laying down harmonised rules on artificial intelligence.
- Indonesia. The 1945 Constitution of the Republic of Indonesia, Articles 28J and 31.
- . Law No. 20 of 2003 concerning the National Education System.
- . Law No. 14 of 2005 concerning Teachers and Lecturers.
- . Law No. 11 of 2008 concerning Electronic Information and Transactions, as amended by Law No. 19 of 2016 and Law No. 1 of 2024.
- . Law No. 12 of 2012 concerning Higher Education.
- . Law No. 18 of 2019 concerning Pesantren.
- . Law No. 27 of 2022 concerning Personal Data Protection.
- . Government Regulation No. 57 of 2021 concerning National Education Standards, as amended by Government Regulation No. 4 of 2022.
- . Circular Letter of the Minister of Communication and Informatics No. 9 of 2023 concerning Artificial Intelligence Ethics.
- UNESCO. Recommendation on the Ethics of Artificial Intelligence. Paris: UNESCO, 2021.