Digital Ethics and AI in Islamic Pedagogy: Cultivating Moral Character in the Tech Era

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Abstract

The rapid development of Artificial Intelligence (AI) has transformed educational practices, offering new opportunities for personalized learning, information access, assessment support, and instructional innovation. However, the increasing integration of AI into education also raises ethical concerns, including data privacy, academic integrity, misinformation, algorithmic bias, digital inequality, and excessive dependence on technology. In Islamic pedagogy, these challenges require an ethical framework that places moral character and human dignity at the center of technological use. This article aims to examine the role of digital ethics and AI in Islamic pedagogy and to explore how their integration can contribute to the cultivation of students' moral character in the technology era. This study employs a qualitative approach using a narrative literature review by analyzing scholarly works, policy documents, and research on artificial intelligence, digital ethics, Islamic education, and character education. The analysis indicates that Islamic principles such as akhlaq, honesty (ṣidq), responsibility (amanah), justice ('adl), and respect for human dignity provide a meaningful foundation for guiding AI use in education. Islamic pedagogy can therefore position AI as a learning support rather than a substitute for human judgment, moral reasoning, and teacher-student relationships. Teachers have an important role as ethical role models who develop students' digital awareness, critical thinking, academic integrity, and social responsibility. The integration of AI should consequently combine technological literacy with moral and spiritual development.

Keywords: digital ethics, artificial intelligence, Islamic pedagogy, moral character, technology era

Introduction

Artificial intelligence (AI) has moved rapidly from a specialized technological field into everyday educational practice. Generative AI systems can support writing, translation, information retrieval, feedback, lesson preparation, and personalized learning. The growing use of such systems has created opportunities for teachers and learners, but it has also intensified questions about what counts as responsible educational use. Recent reviews show that AI in education is associated with concerns about privacy, fairness, autonomy, transparency, inclusion, academic integrity, and the reliability of generated information (Bond et al., 2024; Mouta et al., 2024). UNESCO likewise emphasizes that generative AI should be governed through a human-centred approach that protects privacy, promotes equity, and ensures meaningful pedagogical use.

The ethical problem is especially important because educational technology does not operate in a moral vacuum. AI systems are trained on data, produce probabilistic outputs, and

may reproduce bias or generate inaccurate information. Students may also use generative AI to complete assignments without adequate disclosure, creating difficulties for assessment and academic integrity (Al.Mardhafi et al., 2026; Najwa & Hasanah, 2026). In school contexts, privacy and data security are particularly sensitive because learners are often minors and educational systems may collect personal, behavioural, and performance information. A recent systematic review of K–12 AI ethics identifies privacy and security as among the most frequently discussed concerns, while also highlighting questions of fairness, accountability, transparency, and student agency.

These developments create a significant challenge for Islamic pedagogy. Islamic education is not limited to transferring information or developing technical competence (Khobir et al., 2021). It seeks the formation of persons whose knowledge is connected with faith, ethical conduct, responsibility, and the recognition of human dignity. Al-Attas (1980) places adab at the centre of educational formation, while Halstead (2004) explains that Islamic education contains moral purposes related to the development of virtuous persons and communities. Consequently, the adoption of AI in Islamic education should not be evaluated only by whether it improves efficiency or achievement (Hidayat & Fatmawati Nur Khasanah, 2025). It must also be examined in terms of whether it strengthens or weakens honesty, responsibility, justice, self-discipline, respect, and the proper use of knowledge.

Digital ethics provides an important bridge between technological literacy and moral education (Anisah et al., 2025). Digital ethics concerns the values and principles that guide behaviour in digital environments, including privacy, accountability, transparency, fairness, safety, and respect for others. Within Islamic pedagogy, these principles can be interpreted through established moral concepts such as akhlaq, ṣidq (honesty), amanah (trustworthiness and responsibility), ‘adl (justice), ihsan (excellence and benevolence), and the protection of human dignity. Rather than treating Islamic values as an additional component attached to technology after the fact, these values can serve as an ethical orientation for deciding when, why, and how AI should be used.

Existing scholarship has extensively examined AI in education and has increasingly addressed ethics. However, much of the literature focuses on general educational settings, technological affordances, or institutional governance. Reviews also indicate that ethical frameworks do not always sufficiently address learner agency, cultural context, pedagogical relationships, and the formation of moral character. This article therefore focuses specifically on the intersection between digital ethics, AI, and Islamic pedagogy. The central question is: how can AI be integrated into Islamic pedagogy in ways that cultivate rather than undermine students’ moral character? The objective is to formulate a values-based perspective that connects technological competence with ethical and spiritual formation.

Methods

This study employed a qualitative narrative literature review. The design was selected because the purpose was not to measure the causal effect of an AI intervention but to interpret and synthesize concepts, ethical issues, pedagogical arguments, and Islamic educational values across relevant literature. The review was guided by the question of how digital ethics and AI can contribute to moral character formation within Islamic pedagogy.

Sources and Selection

Sources consisted of peer-reviewed journal articles, scholarly books, international policy documents, and authoritative reports concerning artificial intelligence in education, AI ethics, digital ethics, Islamic education, character education, and academic integrity. Priority was given to recent publications, particularly systematic reviews and conceptual studies published from 2019 to 2026, while foundational works were retained when they provided important theoretical concepts. UNESCO guidance was included because it provides an internationally recognized human-centred framework for generative AI in education.

Data Collection Technique

Literature was identified through searches using combinations of terms such as "artificial intelligence in education," "AI ethics," "digital ethics," "generative AI," "Islamic pedagogy," "Islamic education," "moral character," and "academic integrity." Relevant publications were screened according to their relation to the research question. Key information was extracted regarding AI opportunities, ethical risks, pedagogical implications, and values relevant to moral formation.

Data Analysis Technique

The literature was analysed thematically. First, relevant statements were identified and grouped into major ethical issues. Second, these issues were interpreted in relation to principles of Islamic pedagogy and moral character. Third, convergent themes were synthesized into a conceptual framework linking AI literacy, digital ethics, Islamic values, teacher mediation, and student character. The synthesis emphasized interpretation rather than statistical aggregation.

Results

AI as a Pedagogical Opportunity

The literature indicates that AI can support education in several ways. AI-based systems can facilitate personalized learning, provide rapid feedback, assist teachers in preparing instructional materials, support language-related tasks, and expand access to learning resources (Nur Hasanah, 2023). Reviews of AI in education report applications in adaptive learning, prediction, assessment, tutoring, writing support, and administrative processes (Bond et al., 2024; Almasri, 2024). Generative AI can also function as a conversational learning partner when its outputs are critically evaluated rather than accepted automatically.

From an Islamic pedagogical perspective, these opportunities are valuable when technology remains subordinate to educational purposes. AI can help students explore Qur'anic concepts, compare interpretations, formulate questions, organize ideas, and obtain preliminary explanations. Yet these uses require teacher guidance because generated answers may be incomplete, contextually inappropriate, or inaccurate. The educational value therefore lies not merely in obtaining an answer from AI but in learning how to question, verify, interpret, and ethically apply information.

Ethical Challenges of AI in Education

The literature consistently identifies several ethical challenges. First is privacy and data protection. AI-enabled educational applications may process personal information, learning records, behavioural data, or other sensitive information. UNESCO recommends stronger protection of privacy and a human-centred approach to the use of generative AI in education. Second is academic integrity. Students can use generative AI to produce essays, answers, or other academic work, making it difficult to distinguish genuine learning from outsourced

production. Third is misinformation and hallucination, because generative AI can produce fluent but inaccurate statements. Fourth is bias and inequality, including unequal access to digital tools and the possibility that algorithmic systems reproduce social or cultural biases.

A further concern is excessive dependence. If students habitually delegate reading, reasoning, writing, and problem solving to AI, the technology may reduce opportunities for intellectual struggle and independent judgment. This concern is connected with learner agency: education should develop the capacity to think and act, not merely the capacity to obtain convenient outputs. Recent systematic reviews therefore call for ethical, contextual, participatory, and human-centred approaches to AI in education.

Islamic Ethical Values as a Framework

The literature on Islamic education provides a conceptual basis for responding to these challenges. The first principle is akhlaq, which frames the use of knowledge and technology through good conduct. The second is ṣidq, or honesty, which requires students to disclose meaningful use of AI and avoid presenting machine-generated work as entirely their own. The third is amanah, which implies responsible use of digital resources, careful handling of data, and accountability for technological decisions. The fourth is ‘adl, or justice, which requires attention to fairness, inclusion, and unequal access to AI. The fifth is respect for human dignity, which prevents technological efficiency from becoming a justification for reducing learners to data points or automated profiles.

These values also reinforce the concept of adab. Educational technology should be used with proper purpose, appropriate limits, and respect for teachers, peers, knowledge, and society. AI competence, therefore, should include the ability to ask whether a technological action is permissible, responsible, beneficial, and fair—not merely whether it is technically possible.

Teacher Mediation and Moral Character

Teachers occupy a central position in the ethical integration of AI. Their role changes from being the sole provider of information toward becoming a facilitator, verifier, ethical role model, and designer of learning experiences. Teachers can establish classroom norms concerning disclosure of AI use, source verification, privacy, respectful communication, and independent thinking. They can also design assignments that require reflection, oral explanation, contextual application, and evidence of learning processes, reducing the possibility that students simply outsource the task to AI.

Moral character develops through repeated practice, modelling, reflection, and responsibility. Therefore, digital ethics should not be taught only through a one-time lecture about AI risks. Students need recurring experiences in which they practise honesty in declaring AI assistance, responsibility in checking information, justice in considering unequal access, and respect in communicating through digital platforms. Islamic pedagogy can integrate these practices into PAI lessons, project-based learning, collaborative tasks, and school digital policies.

AI Challenge	Islamic Ethical Value	Teacher Mediation	Expected Character
Academic dishonesty	ṣidq, amanah	Require disclosure and process evidence	Honesty and responsibility
Privacy and data misuse	amanah, human dignity	Teach consent, data minimization, safe practices	Digital responsibility
Bias and inequality	‘adl	Discuss fairness, access, and algorithmic bias	Justice and empathy

Misinformation	ṣidq, tabayyun	Require source verification and comparison	Critical thinking
Excessive dependence	adab, responsibility	Use AI as support, not replacement	Independence and self-discipline

Discussion

From Technological Literacy to Ethical Literacy

The findings suggest that technological literacy is insufficient if it is separated from ethical literacy. Students may know how to prompt an AI system, generate an image, summarize a text, or produce an essay while still lacking the moral capacity to determine whether a particular use is honest, fair, safe, or educationally meaningful. This is consistent with research arguing that AI ethics in education must consider agency, inclusion, fairness, privacy, and the social context of learning rather than focusing only on technical performance (Mouta et al., 2024; Bond et al., 2024).

Islamic pedagogy can contribute a distinctive response because it treats knowledge as connected to moral purpose. The concept of adab challenges an instrumental view of education in which efficiency becomes the primary criterion of success. In an Islamic framework, the question "Can AI do this?" should be accompanied by "Should AI do this?", "Who may be affected?", "Is the use truthful?", and "Does this practice contribute to human flourishing?" Such questions transform AI literacy into ethical and reflective literacy.

Academic Integrity as Moral Formation

Academic integrity should not be treated merely as a disciplinary regulation. It is a concrete arena for cultivating ṣidq and amanah. When students use AI to generate a draft, they should be taught to acknowledge the assistance, verify the content, revise the output, and remain responsible for the final product. This approach moves beyond a simple prohibition of AI. It establishes a culture in which responsible use is possible while dishonest substitution is discouraged.

This distinction is important because banning AI entirely may be unrealistic and may prevent students from developing the skills needed to navigate an AI-mediated society. A more educational approach is guided use: teachers identify appropriate and inappropriate applications, require transparency, and assess the student's reasoning and learning process. In this model, AI becomes an object of ethical learning as well as a learning tool.

Human Dignity and the Role of the Teacher

A human-centred approach is particularly compatible with Islamic educational thought. UNESCO's guidance emphasizes human agency, privacy, equity, and meaningful educational use of generative AI. Islamic pedagogy adds the moral language of dignity, responsibility, adab, and virtue. The convergence suggests that AI should augment human educational relationships rather than replace them.

The teacher remains essential because moral education depends on example, dialogue, judgement, and contextual understanding. An AI system may provide information about honesty, but it cannot replace the teacher's lived example of honesty. It may generate a discussion question about justice, but the teacher must guide students in interpreting the issue and relating it to their lives. Consequently, the ethical integration of AI requires investment in teacher digital competence as well as teacher moral and pedagogical competence.

A Proposed Model for Islamic AI Pedagogy

Based on the synthesis, this article proposes a five-stage model: (1) ethical awareness, in which students understand AI opportunities and risks; (2) value orientation, in which AI use is evaluated through akhlaq, ṣidq, amanah, ʻadl, and human dignity; (3) guided application, in which teachers establish appropriate boundaries and learning purposes; (4) critical verification, in which students check sources, compare information, and identify possible bias or misinformation; and (5) moral reflection, in which students evaluate how their technological choices affect themselves and others.

The model places moral character at the centre rather than at the end of AI education. It implies that every AI-supported learning activity can become an opportunity for character formation. A writing task can cultivate honesty through disclosure; a research task can cultivate responsibility through source verification; a collaborative project can cultivate justice and empathy by considering unequal access; and a digital communication task can cultivate adab through respectful interaction.

Limitations and Future Research

This study is limited by its narrative literature review design and therefore does not provide primary empirical evidence about the effectiveness of the proposed model in a particular school or university. The literature also varies considerably in terminology, educational level, cultural setting, and methodological quality. Future research should test the proposed framework through qualitative case studies, design-based research, or mixed-method studies in Islamic schools, madrasahs, and universities. Research should also examine how teachers and students interpret Islamic ethical concepts in actual AI-supported learning environments.

Conclusion

Artificial intelligence offers substantial opportunities for Islamic education, but its educational value cannot be separated from ethical questions. The literature indicates that privacy, academic integrity, misinformation, bias, inequality, and excessive dependence are among the major challenges that accompany AI integration. These challenges demonstrate that technological competence alone is insufficient for education in the AI era.

Islamic pedagogy provides a meaningful ethical orientation through akhlaq, ṣidq, amanah, ʻadl, adab, and respect for human dignity. These principles can guide students to use AI critically, transparently, responsibly, and for legitimate educational purposes. The teacher remains central as a role model, mediator, verifier, and designer of learning experiences. Therefore, AI should be positioned as a supportive educational tool rather than a substitute for human judgement, moral reasoning, and teacher-student relationships. The proposed model of ethical awareness, value orientation, guided application, critical verification, and moral reflection offers a conceptual pathway for integrating digital literacy with moral and spiritual development. Such integration can contribute to forming learners who are not only technologically capable but also ethically responsible and grounded in Islamic values.

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Conflict of Interests

The author declares that there is no conflict of interest.

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