Proceeding of Integrative Science Education Seminar Vol. 5 No. 1, 2025, pp. 01 - 08

Tersedia secara online di

PISCES

Proceeding of Integrative Science Education Seminar

Beranda prosiding : https://prosiding.iainponorogo.ac.id/index.php/pisces

Artikel

Islamic Ethical Perspectives on the Use of Artificial Intelligence (AI) in Education

Siti Khusnul Faizah[1,2*]

[1]Universitas Islam Negeri (UIN) Kiai Ageng Muhammad Besari Ponorogo
[2]Institut Agama Islam Riyadlotul Mujahidin (IAIRM) Ngabar, Ponorogo

*sitikhusnulfaizah@gmail.com

Info Artikel

5th AVES
Annual Virtual Conference of Education and Science 2025

Kata kunci:
Islamic Ethics
Artificial Intelligence
Islamic Education
Moral Values
Maqāṣid al-sharī'ah

ABSTRACT

The rapid integration of artificial intelligence (AI) into educational systems presents not only technological benefits but also profound ethical challenges. This study explores how Islamic ethical principles; *'adl* (justice), *amanah* (trustworthiness), and *ihsan* (benevolence) can serve as moral foundations for the ethical use of AI in education. Employing a qualitative-descriptive design with an Islamic philosophical hermeneutic approach, the research draws on classical sources such as al-Ghazali's *Ihya' Ulum al-Din* and al-Attas's *Islam and Secularism*, as well as contemporary studies on AI ethics. The findings reveal that integrating Islamic ethics within AI-based education can align technological advancement with the *maqāṣid al-sharī'ah;* preserving faith, intellect, and human dignity. Specifically, *'adl* ensures algorithmic fairness, *amanah* guides responsible data use, and *ihsan* promotes compassionate, learner-centered technology. The proposed *Maqāṣid-Based Islamic Ethical AI Framework* bridges global AI ethical principles; fairness, transparency, and accountability with spiritual and moral dimensions unique to Islamic thought. Consequently, this study highlights the necessity of embedding ethical-spiritual awareness in educational technology to ensure that AI enhances both academic performance and moral formation, contributing to human flourishing within faith-based learning environments.

2025 Siti Khusnul Faizah

INTRODUCTION

The emergence of artificial intelligence (AI) has reshaped educational landscapes globally, offering adaptive learning, data-driven personalization, and automated assessment (Holmes dkk., 2022; UNESCO, 2021). While AI's capabilities offer pedagogical benefits, they also introduce ethical dilemmas such as bias, privacy intrusion, and potential dehumanization of learning. Recent meta-analyses have consolidated international ethical principles for AI in education (AIED), emphasizing fairness, transparency, and accountability as essential to responsible innovation (Nguyen dkk., 2023).

From an Islamic viewpoint, these issues must be grounded within ethical and moral responsibility, as education in Islam is not merely knowledge acquisition but the cultivation of moral and spiritual integrity (Al-Attas, 1993). Islamic educational philosophy emphasizes the formation of *al-insān al-ṣāliḥ* (the virtuous person) who integrates knowledge, faith, and good conduct. This perspective underscores the importance of ethical frameworks-*'adl* (justice), *amanah* (trustworthiness), and *ihsan* (benevolence)—that guide all human activity, including

Copyright © 2025 Siti Khusnul Faizah, , p-ISSN 2808-5337 e-ISSN 2808-5345

technological innovation. As Nasr (S. H., 1996) argues, science detached from spiritual values leads to moral fragmentation. Therefore, Islamic ethics must inform AI application so that technology serves humanity rather than subdues it.

However, studies on AI in education often prioritize secular ethical models such as deontology and utilitarianism (Floridi, 2019) while neglecting spirituality-based perspectives. A recent systematic review of AIED literature highlights fragmentation in the field and calls for context-sensitive frameworks that integrate cultural and ethical dimensions, including religious values (Mustafa dkk., 2024). Similarly, Rahman and Afandi (Rahman & Afandi, 2024) emphasize that technological progress must always be linked to *tauhid*—the awareness of human responsibility as *khalifah* on earth.

This study responds to that research gap by proposing a Maqāṣid-based ethical framework for AI in Islamic education. The framework synthesizes contemporary AI ethics (Holmes dkk., 2021; Nguyen dkk., 2023) with Islamic moral philosophy (*'adl*, *amanah*, and *ihsan*) to guide the ethical design and use of AI systems within faith-based educational contexts.

Research questions guiding this study include: (1) How can Islamic ethical principles form the moral foundation for AI in education? (2) What are the implications of *'adl*, *amanah*, and *ihsan* for character building and academic integrity? (3) How can Islamic ethics be integrated with AI innovation to fulfill the objectives of Islamic education?

METHOD

This study employed a qualitative-descriptive design using an Islamic philosophical hermeneutic approach. This approach was chosen to interpret classical and contemporary Islamic texts alongside modern discourses on artificial intelligence (AI) and ethics. The purpose was not to test hypotheses but to explore the meanings and implications of Islamic ethical values—*'adl* (justice), *amanah* (trustworthiness), and *ihsan* (benevolence)—in the context of AI-based education.

Research Design and Approach

The qualitative design emphasizes interpretive understanding rather than numerical measurement (Creswell & Poth, 2018). The hermeneutic approach, derived from Gadamer's (Gadamer dkk., 2011) concept of the "fusion of horizons," allows the researcher to connect classical Islamic ethical thought with modern educational challenges. This dialogical process makes it possible to reveal how Islamic moral principles can inform contemporary technological practices. The study also incorporates Islamic educational philosophy, focusing on the ultimate goal (*maqāṣid*) of education—developing *insān kāmil* (the complete human being)—and ensuring that technological applications remain aligned with moral and spiritual purposes.

Data Sources and Collection

Data were collected exclusively from documentary and literature sources, making this study a form of library research. Three categories of materials were analyzed:

1. Primary sources, including classical Islamic works such as *Ihya' Ulum al-Din* by al-Ghazali (2008) and *Islam and Secularism* by al-Attas (Al-Attas, 1993), as well as relevant Qur'anic and hadith references.
2. Secondary sources, comprising contemporary research on AI ethics and educational technology (Floridi, 2019; Holmes dkk., 2021; Nguyen dkk., 2023).
3. Policy and institutional documents, such as UNESCO's *AI and Education: Guidance for Policy-Makers* (UNESCO, 2021) and OECD reports on digital ethics.

Sources were gathered through academic databases including Google Scholar, Scopus, and ResearchGate to ensure currency, credibility, and diversity of perspectives.

Data Analysis Procedures

The data analysis integrated techniques from Miles and Huberman's (Miles & Huberman, 1994) interactive model and Spradley's (Spradley, 2011) ethnographic analysis. Four stages were followed systematically:

1. Data Reduction**:** Selecting and organizing the most relevant literature that discusses Islamic ethics and AI in education.
2. Data Display**:** Structuring themes based on the three Islamic ethical principles—*'adl*, *amanah*, and *ihsan*—and linking them with core themes in AI ethics, such as fairness, transparency, and accountability.
3. Interpretation (Hermeneutic Synthesis): Reading and re-reading classical and modern texts to extract meanings, guided by the hermeneutic circle, where understanding of parts and whole mutually inform each other (Gadamer dkk., 2011).
4. Conclusion and Verification**:** Synthesizing interpretations into a conceptual model grounded in the Maqāṣid al-Sharī'ah framework, supported by cross-validation with contemporary AI ethics literature (Mustafa dkk., 2024).

Throughout this process, the researcher acted as the primary interpretive instrument, maintaining reflexivity to minimize bias. Triangulation of sources and theoretical perspectives ensured analytical rigor, while peer debriefing and consultations with Islamic education scholars provided conceptual validation.

The final output of this analysis is an integrative conceptual framework termed the Maqāṣid-Based Islamic Ethical AI Model, which demonstrates how Islamic ethical values can guide the ethical design, implementation, and evaluation of AI in education.

RESULTS AND DISCUSSION

Findings reveal that the three principles—*'adl*, *amanah*, and *ihsan*—serve as the ethical pillars for integrating AI in education. These Islamic moral foundations correspond closely to global AI ethics principles such as fairness, transparency, and accountability (Nguyen dkk., 2023). While secular frameworks often treat ethics as procedural compliance, Islamic ethics provides a spiritually anchored orientation that links knowledge, morality, and divine accountability.

1. *'Adl* (Justice) and Algorithmic Fairness

The principle of *'adl* in Islam encompasses not only formal fairness but also moral and social equilibrium, requiring balanced treatment of all individuals regardless of background. In AI systems, *'adl* manifests through algorithmic fairness—the commitment to eliminate bias in data collection, model design, and evaluation processes (Mustafa dkk., 2024). For instance, adaptive learning systems must ensure that algorithmic recommendations do not privilege certain groups of students over others due to socio-economic or cultural factors.

The Qur'an enjoins believers to uphold justice even against personal interests: *"Be persistently standing firm in justice, witnesses for Allah, even if it be against yourselves or parents and relatives"* (QS. Al-Ma'idah [5]: 8) (Ali, 1999). Translating this principle into AI practice implies developing mechanisms for value-based algorithmic auditing—ensuring that AI systems in education not only perform accurately but also operate ethically (Holmes dkk., 2021; Nguyen dkk., 2023).

2. *Amanah* (Trustworthiness) and Data Responsibility

The value of *amanah* emphasizes moral responsibility, integrity, and respect for trust. In the context of AI, *amanah* relates to data ethics—ensuring transparency, consent, and protection of students' personal information. According to Rahman and Afandi (Rahman & Afandi, 2024), ethical use of technology must reflect human accountability as *khalifah* on earth, balancing innovation with moral restraint.

A responsible AI ecosystem in education requires developers and educators to treat data as a sacred trust, aligning with the Qur'anic injunction: *"Do not betray Allah and the Messenger,*

nor betray your trusts while you know [the consequences]" (QS. Al-Anfal [8]: 27) (Ali, 1999). This means that educational data should be used solely for pedagogical improvement and student well-being, not for commercial exploitation or invasive surveillance.

3. *Ihsan* (Benevolence) and Spiritual Orientation in AI

The principle of *ihsan* transcends justice and trust by introducing the dimension of benevolence and excellence in human conduct. In AI ethics, *ihsan* inspires the use of technology for moral and spiritual benefit—promoting compassion, empathy, and holistic development. Mustafa et al. (Mustafa dkk., 2024) highlight that future research agendas in AI ethics should address "human-centered and context-sensitive" models that reflect cultural and faith-based values.

This study aligns with that call by positioning *ihsan* as the ultimate ethical compass for AI in Islamic education. AI-driven systems should not merely automate instruction but also encourage *tazkiyah al-nafs* (purification of the self) and moral reflection. For instance, Islamic value-based chatbots or adaptive learning platforms can be designed to foster virtues such as patience, honesty, and empathy. In this way, AI becomes a means of cultivating *insān kāmil*—a morally upright and spiritually aware learner.

4. Integrating Islamic and Global Ethical Frameworks

The synthesis of *'adl*, *amanah*, and *ihsan* with contemporary AI ethics demonstrates that Islamic ethical frameworks are not isolated from global discourse but rather enrich it with transcendent moral dimensions. While secular frameworks focus on procedural fairness and accountability, the Islamic perspective integrates divine purpose (*maqāṣid al-sharī'ah*) as the ultimate end of technological engagement.

The resulting Maqāṣid-Based Islamic Ethical AI Framework consists of three interrelated layers:

a. Foundational Values: *'adl*, *amanah*, *ihsan* as the moral essence guiding all AI functions.
b. Operational Principles: algorithmic fairness audits, transparent data governance, and compassionate AI design.
c. Teleological Objectives: alignment with *maqāṣid al-sharī'ah*—preserving religion (*ḥifẓ al-dīn*), intellect (*ḥifẓ al-'aql*), life (*ḥifẓ al-nafs*), lineage (*ḥifẓ al-nasl*), and property (*ḥifẓ al-māl*).

Through this integrative model, AI in Islamic education becomes a vehicle for *rahmatan lil-'alamin*—technology that embodies mercy, justice, and human flourishing rather than moral erosion.

Operationalization of Islamic Ethical Principles ('Adl, Amanah, Ihsan) in AI-Based Educational Contexts

1. Operationalizing *'Adl* (Justice) — Algorithmic Fairness and Educational Equity

In Islamic ethics, *'adl* signifies balance, fairness, and the elimination of injustice in all human interactions. In the context of AI-based education, this principle can be operationalized through algorithmic fairness audits and bias mitigation strategies.

Practically, this means:

a. Dataset Auditing: Educational institutions must review training data for potential bias related to gender, ethnicity, or socioeconomic background. For example, adaptive learning algorithms should be evaluated to ensure equal representation of diverse student profiles.
b. Transparent Decision-Making: AI-based grading systems or recommendation engines must include explainable outputs so teachers and students can understand how decisions are made (Nguyen dkk., 2023).

c. Inclusive Design Policies: Developers and educators should adopt *value-sensitive design* approaches that reflect the Islamic notion of *'adl*, ensuring that technology serves all learners equitably (Mustafa dkk., 2024).

By embedding *'adl* into AI architecture, Islamic education systems can prevent algorithmic discrimination and promote fairness as a moral as well as technical standard.

2. Operationalizing *Amanah* (Trustworthiness) — Data Ethics and Moral Responsibility

The principle of *amanah* encompasses trust, responsibility, and accountability before God and society. In AI-based educational environments, *amanah* translates into ethical data management and transparent information governance.

Operationally, *amanah* can be implemented through:

a. Ethical Data Policies: Institutions should establish explicit guidelines on the use, storage, and sharing of students' personal and academic data, ensuring compliance with Islamic values of confidentiality (*sirriyyah*) and human dignity.
b. Consent-Based Data Collection: Students and parents must be informed about how their data are used and must consent freely. This practice embodies the Qur'anic principle: *"Do not betray Allah and the Messenger, nor betray your trusts while you know [the consequences]"* (QS. Al-Anfal [8]: 27) (Ali, 1999).
c. Integrity in AI Feedback Systems: Automated feedback tools should present accurate, verifiable information and avoid manipulating learning outcomes for institutional or commercial interests (Rahman & Afandi, 2024).

Hence, *amanah* operationalization ensures that AI technologies in Islamic education foster moral trust, preserve privacy, and maintain academic integrity.

3. Operationalizing *Ihsan* (Benevolence)-Spiritual Orientation and Human-Centered Design

Ihsan embodies excellence, benevolence, and consciousness of divine presence in every action. Within AI-based education, *ihsan* can be applied by aligning technology design with human values and spiritual objectives.

Practical applications include:

a. Moral-AI Integration: Embedding moral reasoning or Qur'anic reflection features within learning applications, for example, AI chatbots that promote ethical decision-making or spiritual reflection during learning tasks.
b. Human-Centered Pedagogy: Using AI to support—not replace—teachers, enabling them to focus on mentoring students' moral and emotional development while AI handles routine assessment tasks.
c. Well-Being Analytics: Employing AI tools to monitor students' emotional and psychological well-being, ensuring that education remains compassionate and holistic rather than purely performance-driven (Mustafa dkk., 2024).

Thus, *ihsan* operationalization directs AI to serve as a medium for *tazkiyah al-nafs* (purification of the self), cultivating empathy, humility, and social responsibility among learners.

4. Integrative Framework: Linking Islamic Principles with AI Ethics Practice

Together, *'adl*, *amanah*, and *ihsan* form an integrated operational model that aligns technical AI processes with Islamic moral objectives.

Islamic Ethical Principle	Operational Focus in AI-Based Education	Practical Implementation
‘Adl (Justice)	Fairness and equality in algorithm design	Bias auditing, explainable AI, inclusive datasets
Amanah (Trustworthiness)	Ethical data governance	Consent-based data use, privacy protection, transparency reports
Ihsan (Benevolence)	Human-centered and spiritually guided AI	Moral-AI integration, character-based learning, compassion analytics

This framework ensures that AI serves as an ethical partner in education rather than a neutral instrument. It transforms AI into a tool of *rahmah* (mercy), promoting social equity, moral integrity, and human dignity-objectives that align with *maqāṣid al-sharī‘ah* (preservation of religion, intellect, life, lineage, and property).

Conceptual Bridge Between Global and Islamic AI Ethics

Global AI ethics frameworks prioritize fairness, accountability, and transparency (Holmes dkk., 2022; Nguyen dkk., 2023). Islamic ethics complements these through transcendence and divine accountability (*taklīf*).

1. Moral Parallels: Both value justice and beneficence, but Islam adds spiritual motivation-*‘adl*, *amanah*, *ihsan*.
2. Epistemological Integration: Global ethics relies on human reason; Islamic ethics integrates revelation (*wahy*) and reason (*‘aql*), united under *karāmah insāniyyah* (human dignity).
3. Operational Synthesis: Applying *maqāṣid al-sharī‘ah* within AI ensures ethics in practice-technology that serves *maslahah* (universal benefit) with divine accountability.

Thus, Islamic ethics does not replace global frameworks but enriches them, grounding AI ethics in spiritual and moral responsibility.

CONCLUSION

This study set out to explore how Islamic ethical principles—*‘adl* (justice), *amanah* (trustworthiness), and *ihsan* (benevolence)—can inform the ethical use of artificial intelligence (AI) in education. Using an Islamic philosophical hermeneutic approach, it developed a conceptual synthesis between classical Islamic ethics and contemporary AI ethics, grounded in the *maqāṣid al-sharī‘ah* (objectives of Islamic law). The results demonstrate that Islamic ethics provides not only a moral foundation but also a transformative lens through which AI can serve educational justice, moral accountability, and human flourishing.

Theoretically, this study contributes to the emerging discourse on Islamic educational ethics and AI by offering a Maqāṣid-Based Islamic Ethical AI Framework. This framework bridges global AI ethics—typically procedural and secular—with a spiritually grounded paradigm that integrates divine accountability (*taklīf*), human dignity (*karāmah insāniyyah*), and social benefit (*maslahah*). It advances the field by positioning Islamic ethics as a complementary framework that enriches universal AI ethics with transcendental and value-based dimensions.

Practically, the framework provides guidance for educators, policymakers, and technologists in designing and implementing AI systems that uphold fairness, transparency, and compassion while nurturing students’ moral and spiritual development. It supports the

integration of Islamic ethical education into digital learning policy and technology governance, ensuring that AI tools in Islamic schools and universities remain ethically and spiritually accountable.

Future research may extend this conceptual model through empirical validation in Islamic educational institutions, examining how ethical awareness and trust in AI technologies develop when guided by Islamic moral frameworks. Such studies will help refine the proposed model and strengthen the role of Islamic ethics as a vital contributor to global discussions on responsible and human-centered AI.

REFERECES

Al-Attas, S. M. N. (1993). *Islam and Secularism.* ISTAC.

Ali, A. Y. (1999). *The meaning of the Holy Qurản* (Tenth Edition). Amana Publication.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design* (Fourth edition). SAGE.

Floridi, L. (2019). *The Logic of Information: A Theory of Philosophy as Conceptual Design*. Oxford University Press. https://doi.org/10.1093/oso/9780198833635.001.0001

Gadamer, H.-G., Weinsheimer, J. C., & Gadamer, H.-G. (2011). *Truth and method* (2., rev. ed., reprint). Continuum.

Holmes, W., Porayska-Pomsta, K., Holstein, K., Sutherland, E., Baker, T., Shum, S. B., Santos, O. C., Rodrigo, M. T., Cukurova, M., Bittencourt, I. I., & Koedinger, K. R. (2022). Ethics of AI in Education: Towards a Community-Wide Framework. *International Journal of Artificial Intelligence in Education*, *32*(3), 504–526. https://doi.org/10.1007/s40593-021-00239-1

Holmes, W., Porayska-Pomsta, K., Holstein, K., Sutherland, E., Baker, T., Shum, S., Santos, O., Rodrigo, M., Cukurova, M., Bittencourt, I., & Koedinger, K. (2021). Ethics of AI in Education: Towards a Community-Wide Framework. *International Journal of Artificial Intelligence in Education*, *32*, 504–526. https://doi.org/10.1007/s40593-021-00239-1

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook.* SAGE Publications. Inc.

Mustafa, M. Y., Tlili, A., Lampropoulos, G., Huang, R., Jandrić, P., Zhao, J., Salha, S., Xu, L., Panda, S., Kinshuk, López-Pernas, S., & Saqr, M. (2024). A systematic review of literature reviews on artificial intelligence in education (AIED): A roadmap to a future research agenda. *Smart Learning Environments*, *11*(1), 59. https://doi.org/10.1186/s40561-024-00350-5

Nguyen, A., Ngo, H. N., Hong, Y., Dang, B., & Nguyen, B.-P. T. (2023). Ethical principles for artificial intelligence in education. *Education and Information Technologies*, *28*(4), 4221–4241. https://doi.org/10.1007/s10639-022-11316-w

Rahman, M. R. N., & Afandi, N. K. (2024). Islamic Education Students' Perceptions: A Phenomenological Study on the Ethical of Using Artificial Intelligence (AI) in Learning. *J-PAI: Jurnal Pendidikan Agama Islam*. https://doi.org/10.18860/jpai.v11i1.27932

S. H., N. (1996). *Islamic Science: An Illustrated Study*. World of Islam Festival Trust.

Spradley, J. P. (2011). *Participant observation* (Nachdr.). Wadsworth, Cengage Learning.

UNESCO. (2021). *AI and education: Guidance for policy-makers*. UNESCO. https://doi.org/10.54675/PCSP7350