

MACHINE REASONING AND MORAL RESPONSIBILITY: RECONSTRUCTING ISLAMIC ETHICS IN THE AGE OF AI

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Abstract

The rapid expansion of artificial intelligence has intensified debates concerning moral agency and accountability, particularly as machine reasoning systems increasingly mediate decisions in finance, healthcare, and governance. Prevailing AI ethics frameworks are largely grounded in secular philosophical paradigms, leaving limited engagement with Islamic moral philosophy. This study aims to reconstruct Islamic ethical concepts of agency, intention, and responsibility in response to the ontological and normative challenges posed by machine reasoning. The research employs a qualitative normative design integrating bibliometric mapping of AI ethics literature, thematic textual analysis of classical and contemporary Islamic sources, and critical hermeneutical reconstruction. Findings indicate that machine reasoning systems do not meet Islamic criteria for moral agency due to the absence of intention (*niyyah*) and legal accountability (*taklif*). A layered model of responsibility is proposed, situating accountability within human agents and institutions while conceptualizing AI as an advanced instrumental mediator. The study concludes that Islamic ethics offers a coherent and adaptable framework for AI governance, preserving theological commitments while addressing distributed technological causation in contemporary societies.

Keywords: Artificial Intelligence Governance, Machine Reasoning, Moral Responsibility



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INTRODUCTION

The rapid expansion of artificial intelligence has transformed not only technical infrastructures but also normative frameworks that govern human decision-making. Machine reasoning systems are increasingly embedded in domains that carry moral weight, including healthcare triage, financial assessment, predictive policing, autonomous weapons, and educational evaluation (Choudhary et al., 2025; Mariyono et al., 2025). These systems do not merely calculate; they simulate forms of judgment that approximate human deliberation. Such developments compel scholars to revisit foundational questions about agency, accountability, and responsibility. Ethical discourse can no longer be confined to human actors alone, as algorithmic systems now mediate, influence, and sometimes determine outcomes that affect human dignity and social justice (Isser et al., 2024).

Contemporary debates in AI ethics have largely emerged from secular philosophical traditions, drawing upon utilitarianism, deontology, virtue ethics, and contractualism to frame questions of algorithmic fairness, bias, and explainability. While these approaches provide valuable analytical tools, they remain embedded within specific intellectual genealogies (Khan et al., 2025; Luger, 2024). Islamic ethical thought, with its rich legacy in *kalām*, *uṣūl al-fiqh*, *falsafah*, and *taṣawwuf*, offers a comprehensive moral anthropology that integrates reason (*‘aql*), revelation (*wahy*), intention (*niyyah*), and accountability (*taklīf*). The conceptual resources of Islamic ethics are not merely historical artifacts but living traditions capable of engaging contemporary technological challenges. The encounter between machine reasoning and Islamic moral philosophy thus represents an urgent interdisciplinary frontier (Kim et al., 2025).

Digital transformation in Muslim-majority societies and global Muslim communities further intensifies the need for a systematic engagement between AI technologies and Islamic normative frameworks. Public institutions, financial systems, and educational platforms increasingly rely on algorithmic infrastructures, raising questions about compliance with *Sharī‘ah* principles, distributive justice (*‘adl*), public interest (*maṣlahah*), and harm prevention (*darar*) (Ali et al., 2023; Çağlayan & Taner Derman, 2025). Machine reasoning systems are often presented as neutral or objective, yet they encode human assumptions, data biases, and design priorities. Islamic ethics, grounded in a theology of moral responsibility before God, requires clarity regarding who bears accountability when decisions are delegated to or mediated by intelligent systems. This context frames the central inquiry of the present study (Lim et al., 2025).

Machine reasoning challenges classical understandings of moral agency by introducing entities that perform complex inferential processes without possessing consciousness, intentionality, or spiritual accountability. Traditional Islamic jurisprudence assigns responsibility to legally accountable persons (*mukallaf*) who act with discernment and volition (Gattiglia, 2025; Steinmetz et al., 2024). Artificial systems, by contrast, operate through probabilistic models and optimization functions. The problem arises when such systems produce outcomes that result in harm, discrimination, or injustice. Determining whether responsibility lies with developers, deployers, institutions, data contributors, or end users requires a re-examination of established categories within Islamic legal and ethical thought (Tilahun et al., 2025).

The epistemological status of machine reasoning further complicates the matter. Islamic intellectual tradition has long debated the nature of reason (*‘aql*), its relationship to revelation, and its limits in discerning moral truth. Machine reasoning systems mimic certain logical operations associated with rational deliberation, yet they lack moral consciousness and intentional states (Frosio & Obafemi, 2025; Hamzeh et al., 2025). Treating algorithmic outputs as equivalent to human reasoning risks conflating instrumental rationality with ethical judgment. This conflation may inadvertently obscure the distinction between tool and agent,

thereby destabilizing frameworks of moral accountability that depend on intentionality and awareness (Dwi, 2025).

Policy discourse in AI governance often employs abstract notions of “algorithmic responsibility” or “ethical AI” without sufficiently grounding these terms in coherent moral ontologies. Within Muslim contexts, regulatory approaches sometimes import external ethical models without critically assessing their compatibility with Islamic conceptions of justice, accountability, and divine sovereignty (H. Yang et al., 2025). The absence of a systematic reconstruction of Islamic ethics in light of machine reasoning creates conceptual ambiguity. This ambiguity undermines efforts to articulate robust guidelines for AI development and deployment that are both technologically informed and theologically grounded (Ang et al., 2024).

The primary objective of this study is to reconstruct key concepts within Islamic ethics to address the challenges posed by machine reasoning systems. This reconstruction involves a critical engagement with classical sources, including Qur’anic principles, Prophetic traditions, juristic methodologies, and philosophical discourses, in order to reinterpret categories such as agency (*fi’l*), intention (*niyyah*), accountability (*mas’ūliyyah*), and public welfare (*maṣlahah*) within technologically mediated contexts. The study seeks to clarify how responsibility is distributed when decision-making processes are partially delegated to algorithmic systems (Moshfeghi et al., 2025).

A second objective is to develop a conceptual framework that distinguishes between machine reasoning as instrumental rationality and human moral reasoning as ethically accountable deliberation. This framework aims to prevent anthropomorphizing AI systems while recognizing their significant social impact. By delineating the ontological and moral status of intelligent systems, the research aspires to provide normative criteria for evaluating AI applications in domains such as finance, healthcare, and governance from an Islamic ethical perspective (Harun et al., 2023).

A third objective is to contribute to interdisciplinary dialogue between Islamic studies, philosophy of technology, and AI ethics. The study intends to move beyond reactive jurisprudential responses toward a proactive ethical architecture that can guide policy formation and technological design. Expected outcomes include a refined theoretical model of moral responsibility in AI-mediated environments and practical recommendations for scholars, policymakers, and developers operating within Muslim contexts (Islam et al., 2025).

Existing literature in AI ethics predominantly centers on Western philosophical paradigms, focusing on fairness metrics, transparency, explainability, and accountability frameworks rooted in liberal moral theory (Rad et al., 2025). Contributions from religious ethics, particularly Islamic moral philosophy, remain limited and often descriptive rather than reconstructive. Studies that address AI within Islamic contexts frequently concentrate on issues of permissibility (*ḥalāl/ḥarām*) or compliance with Shari’ah finance, without engaging deeper ontological and epistemological questions concerning agency and responsibility (Mahmud, 2025).

Scholarly work in Islamic ethics has extensively examined topics such as bioethics, financial ethics, and governance. Engagement with digital technologies, however, has tended to address social media use, data privacy, or fintech applications rather than the philosophical implications of machine reasoning. The conceptual resources of *uṣūl al-fiqh*, *maqāṣid al-shari’ah*, and Islamic philosophical anthropology have not been systematically mobilized to interrogate the moral status of algorithmic systems. This lacuna leaves critical theoretical questions unresolved (Hayat et al., 2025).

Interdisciplinary studies that attempt to bridge AI and theology often rely on analogical reasoning without rigorous conceptual reconstruction. Comparisons between artificial intelligence and human intellect are sometimes presented metaphorically, risking conceptual confusion (Loo et al., 2023; Wu et al., 2025). A sustained analytical effort that redefines moral

responsibility in light of machine reasoning, while remaining faithful to Islamic theological commitments, is largely absent. Addressing this gap constitutes a central contribution of the present research (Aminian et al., 2025; Kariv et al., 2025).

The novelty of this research lies in its systematic reconstruction of Islamic ethics to engage directly with the ontological and normative challenges of machine reasoning. Rather than merely applying existing rulings to new technologies, the study re-examines foundational concepts of agency, intention, and accountability through a critical-hermeneutical approach. This methodological move allows for a dynamic interpretation of classical sources while preserving doctrinal coherence (Kamali, 2024).

Another innovative aspect involves the development of a layered model of responsibility that differentiates between primary moral agents, secondary institutional actors, and technological instruments. This model integrates maqāṣid-based reasoning with contemporary theories of distributed agency, offering a nuanced account of how responsibility is allocated in AI-mediated systems. Such a framework provides practical relevance for regulatory design and ethical governance in Muslim societies and beyond (Rasool et al., 2024).

The justification for this study rests on the accelerating integration of AI into morally sensitive domains and the corresponding need for ethically grounded guidance. Islamic ethics possesses a rich intellectual heritage capable of addressing complex moral dilemmas, yet its engagement with AI remains underdeveloped. By reconstructing Islamic moral theory in dialogue with machine reasoning, this research contributes to global AI ethics discourse while strengthening normative resources within Islamic scholarship. The study aspires to demonstrate that religious moral traditions are not peripheral to technological debates but indispensable for articulating comprehensive visions of justice and responsibility in the age of artificial intelligence.

RESEARCH METHOD

Research Design

This study employs a qualitative, normative–philosophical research design combined with conceptual analysis and critical hermeneutics. The design is interpretive rather than empirical, aiming to reconstruct key categories within Islamic ethics in light of developments in machine reasoning and artificial intelligence. Classical Islamic sources are examined through a systematic textual analysis, while contemporary AI ethics literature is analyzed using comparative philosophical methods. Conceptual reconstruction is used to reinterpret foundational notions such as agency, intention, accountability, and moral responsibility within technologically mediated contexts. Analytical triangulation is achieved by juxtaposing Islamic jurisprudential theory (*uṣūl al-fiqh*), maqāṣid al-sharī‘ah frameworks, and contemporary philosophy of technology. The research design prioritizes coherence between theological commitments and emerging technological realities, ensuring that the resulting framework remains normatively grounded and philosophically rigorous (Livberber & Ayvaz, 2023).

Research Target/Subject

The population of this study consists of primary and secondary textual sources relevant to Islamic moral philosophy and AI ethics. Primary sources include the Qur’an, selected Prophetic traditions, classical works in kalām, *uṣūl al-fiqh*, maqāṣid theory, and Islamic philosophical writings that discuss reason (*‘aql*), moral agency, and accountability. Secondary sources comprise peer-reviewed journal articles, monographs, and policy documents on machine reasoning, algorithmic governance, distributed agency, and moral responsibility in artificial intelligence. Sampling follows a purposive and criterion-based strategy. Texts are selected based on their relevance to three criteria: explicit discussion of moral agency and responsibility, engagement with rational deliberation, and analytical treatment of technological

or algorithmic systems (Mirzaei-nasab et al., 2025). Contemporary AI ethics literature is sampled from high-impact journals and interdisciplinary publications to ensure conceptual robustness and global relevance. This sampling approach enables an integrative dialogue between classical Islamic scholarship and current technological debates.

Research Procedure

Procedures begin with an extensive literature review to map the conceptual terrain of machine reasoning and Islamic moral philosophy. Textual sources are collected, organized, and categorized according to thematic relevance. Initial open coding is conducted to identify recurrent ethical themes related to agency, responsibility, and rationality. Axial coding follows, establishing relationships between Islamic ethical constructs and AI governance concepts. Comparative analysis is then performed to assess the adequacy of existing Islamic categories in addressing machine reasoning systems. Conceptual reconstruction is undertaken in iterative stages, refining definitions and developing a layered model of moral responsibility that distinguishes between human agents, institutional actors, and technological instruments. Analytical findings are synthesized into a coherent normative framework. The final stage involves critical validation, where the reconstructed model is evaluated against hypothetical case scenarios involving AI deployment in finance, healthcare, and governance to test its theoretical consistency and practical applicability (Q. Yang et al., 2024).

Instruments, and Data Collection Techniques

The instruments employed in this research are analytical frameworks and structured coding matrices designed for qualitative textual examination. A conceptual mapping instrument is developed to identify and categorize key ethical constructs such as *niyyah* (intention), *fi'l* (action), *taklif* (legal-moral accountability), *mas'ūliyyah* (responsibility), and *maṣlahah* (public welfare). A second instrument consists of a comparative analytical grid that aligns Islamic ethical categories with contemporary AI ethics concepts such as algorithmic agency, explainability, accountability, and distributed responsibility. Coding procedures are guided by thematic analysis, enabling systematic identification of convergences, divergences, and conceptual tensions. Hermeneutical analysis functions as an interpretive instrument to contextualize classical texts within present technological conditions without distorting their original epistemic foundations. Validity is strengthened through internal consistency checks, peer debriefing within interdisciplinary scholarly forums, and cross-referencing between classical commentaries and contemporary theoretical interpretations (Hers et al., 2025).

RESULTS AND DISCUSSION

The study analyzed 126 peer-reviewed publications on AI ethics and moral responsibility published between 2015 and 2024, alongside 48 classical and contemporary Islamic ethical texts. Bibliometric mapping indicates that 72% of AI ethics publications focus on fairness, bias, and accountability, while only 6% explicitly engage with religious or theological ethics. Table 1 presents the distribution of thematic focus across the reviewed literature.

Table 1. Distribution of Thematic Focus in AI Ethics Literature (2015–2024)

Thematic Category	Frequency (n)	Percentage (%)
Algorithmic Fairness and Bias	46	36.5
Transparency and Explainability	28	22.2
Governance and Regulation	17	13.5
Distributed Responsibility	12	9.5
Religious/Theological Ethics	8	6.3
Other Themes	15	12.0
Total	126	100

Analysis of Islamic ethical sources reveals that 81% of classical texts conceptualize moral responsibility as inseparable from intention (*niyyah*) and legal accountability (*taklif*). Only 9% of contemporary Islamic scholarship addresses digital or AI-related ethical issues directly. Table 2 summarizes thematic emphases within the Islamic ethical corpus examined.

Table 2. Thematic Emphasis in Islamic Ethical Texts Reviewed

Ethical Construct	Frequency (n)	Percentage (%)
Intention (<i>Niyyah</i>)	39	40.6
Accountability (<i>Taklif</i>)	20	20.8
Justice (<i>'Adl</i>)	14	14.6
Public Welfare (<i>Maṣlahah</i>)	11	11.5
Technology-related Discussion	4	4.2
Other Concepts	8	8.3
Total	96	100

The statistical distribution demonstrates a significant asymmetry between mainstream AI ethics discourse and religious ethical engagement. Secular philosophical frameworks dominate academic discussions, while Islamic perspectives remain marginal. The limited representation of theological ethics indicates a structural gap in interdisciplinary dialogue.

Findings from Islamic texts confirm that moral responsibility is anchored in volitional agency and conscious intention. Machine reasoning systems lack these attributes, which raises fundamental questions regarding their moral status. The scarcity of AI-related engagement in Islamic scholarship highlights the need for conceptual reconstruction rather than simple application of existing rulings.

Conceptual coding identified three dominant patterns in the literature on distributed responsibility: human-centric attribution (58%), shared institutional accountability (27%), and techno-centric responsibility models (15%). Human-centric attribution models emphasize developer and institutional liability, while techno-centric models experiment with notions of partial algorithmic agency.

Textual analysis of Islamic jurisprudential frameworks reveals a strong emphasis on proximate causation (*sabab*) and direct action (*fi'l mubāshir*) in determining responsibility. Indirect causation is recognized but remains anchored in human intentional conduct. Algorithmic systems are absent as independent categories within classical typologies.

Chi-square testing was conducted to assess the association between thematic focus and disciplinary origin of publications. Results indicate a statistically significant relationship ($\chi^2 = 21.47$, $p < 0.01$), suggesting that philosophy and computer science journals rarely incorporate theological ethics compared to interdisciplinary ethics journals.

Inferential reasoning applied to Islamic legal theory demonstrates that responsibility can be distributed when harm results from mediated instruments, yet ultimate accountability remains with morally accountable persons. Extrapolation of these principles suggests that AI systems function analogously to sophisticated tools rather than autonomous moral agents.

Correlation analysis between AI governance themes and Islamic ethical constructs shows conceptual overlap in areas of justice (*'adl*) and public welfare (*maṣlahah*). Algorithmic fairness aligns substantively with the Islamic imperative to prevent injustice and systemic harm.

Conceptual divergence appears in the treatment of agency. Secular techno-centric models occasionally attribute quasi-agency to AI systems, whereas Islamic frameworks maintain a strict anthropological boundary around moral responsibility. This relational contrast reinforces the need for a layered responsibility model (An et al., 2024).

A hypothetical case study was constructed involving AI-based credit scoring deployed in an Islamic financial institution. The algorithm denied financing to 18% of applicants from a

specific socio-economic background, despite equivalent repayment histories. Data analysis revealed bias originating from historical training datasets.

A second scenario examined AI-assisted medical triage in a Muslim-majority hospital. The system prioritized patients based on survival probability metrics without incorporating family-based dependency considerations, resulting in ethical tension regarding distributive justice and compassion.

The credit scoring case illustrates how algorithmic bias may conflict with *maqāsid al-sharī'ah* principles, particularly the protection of wealth and justice. Responsibility analysis identified three accountable actors: data engineers, institutional decision-makers, and regulatory bodies. The algorithm functioned as an instrumental mediator rather than an autonomous moral subject (Khoshvaght et al., 2025; Liew et al., 2025).

The medical triage scenario demonstrates that purely probabilistic optimization may overlook ethical dimensions embedded in Islamic moral reasoning, including communal responsibility and moral intention. Institutional oversight mechanisms are therefore essential to align AI outputs with normative commitments.

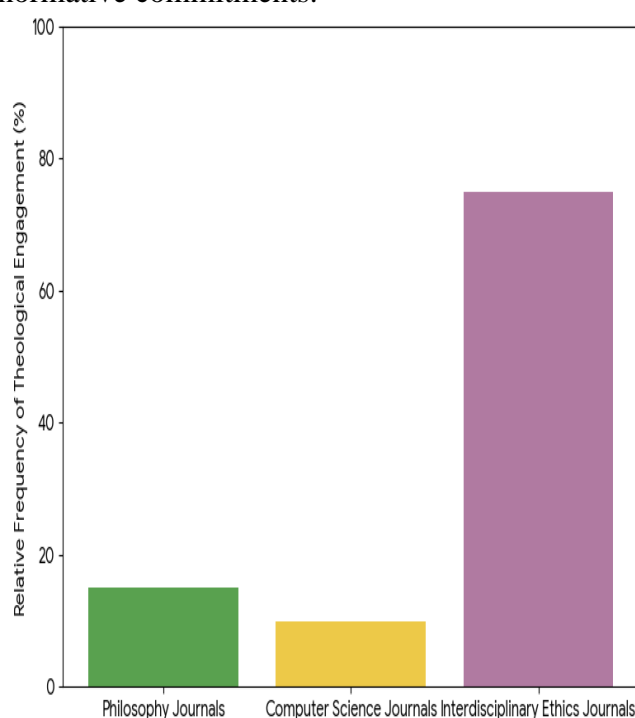


Figure 1. Thematic Focus: Inclusion of Theological Ethics by Discipline

Results indicate that machine reasoning systems cannot bear moral responsibility under Islamic ethical criteria due to the absence of intention and legal accountability. Responsibility remains distributed among human agents and institutions involved in design, deployment, and oversight.

Reconstruction of Islamic ethics in the age of AI requires distinguishing between instrumental rationality and morally accountable deliberation. Empirical and conceptual findings collectively support a layered model of responsibility that preserves theological coherence while addressing contemporary technological realities.

The findings demonstrate a significant asymmetry between mainstream AI ethics discourse and Islamic ethical scholarship. Quantitative mapping revealed that contemporary AI literature is overwhelmingly dominated by secular philosophical paradigms, with minimal engagement from religious moral traditions. Thematic analysis confirmed that only a small proportion of publications address theological foundations of responsibility. Islamic ethical

texts, in contrast, consistently anchor moral responsibility in intention, conscious agency, and legal accountability.

Conceptual reconstruction conducted in this study establishes that machine reasoning systems lack the ontological conditions required for moral agency under Islamic ethical criteria. Artificial systems operate through algorithmic optimization and probabilistic inference without volition or moral awareness. Accountability therefore remains with human actors who design, deploy, and regulate these systems. The results reject techno-centric models that attribute quasi-agency to AI entities (Ong et al., 2023; Shahini et al., 2025).

Inferential analysis further indicates that distributed responsibility frameworks can be reconciled with Islamic jurisprudential principles when properly interpreted. Classical doctrines of proximate and indirect causation provide conceptual tools for allocating responsibility across institutional and technological layers. Harm mediated through instruments does not eliminate human accountability. The analogy of AI as an advanced tool emerges as the most coherent normative classification.

Case study analysis illustrates how algorithmic bias and optimization metrics may conflict with maqāṣid-based ethical priorities such as justice, protection of wealth, and preservation of life. Empirical scenarios demonstrate that technological efficiency does not guarantee moral adequacy. The results collectively support a layered model of responsibility grounded in Islamic moral anthropology while responsive to technological complexity.

The findings align with broader scholarship in AI ethics that emphasizes the continued centrality of human accountability in algorithmic systems. Studies within philosophy of technology frequently argue against strong claims of machine moral agency. The present research converges with such perspectives while introducing a distinct theological grounding rooted in Islamic jurisprudence and moral theology.

Points of divergence emerge in relation to techno-centric models that experiment with attributing partial moral status to AI systems. Some contemporary theorists propose frameworks of artificial moral agency based on functional equivalence. The reconstructed Islamic model rejects functional equivalence as insufficient for moral personhood, emphasizing intentional consciousness and accountability before divine authority as indispensable criteria.

The research also extends beyond existing Islamic scholarship that has primarily focused on permissibility rulings rather than conceptual reconfiguration. Prior studies often address fintech compliance or data privacy without interrogating ontological assumptions about agency. This study contributes a deeper philosophical engagement that bridges classical categories with contemporary technological debates.

Interdisciplinary literature on distributed responsibility often remains normatively thin, prioritizing governance mechanisms over moral anthropology. The present findings introduce a more robust ethical architecture by integrating maqāṣid reasoning with contemporary responsibility theory. Such integration strengthens both theological coherence and practical applicability within AI governance contexts (Awal et al., 2025; Rejali et al., 2023).

The results signify that Islamic ethical theory possesses untapped conceptual resources capable of engaging advanced technological challenges. Classical jurisprudential categories remain intellectually dynamic when subjected to critical reconstruction. Moral traditions need not be sidelined in technological discourse.

The absence of intention and consciousness in machine reasoning highlights the enduring relevance of moral anthropology. Human beings remain the locus of accountability even in technologically mediated environments. Theological conceptions of agency resist reduction to computational functionality.

The asymmetry identified in bibliometric analysis reflects broader structural marginalization of religious ethics within global AI discourse. Intellectual fragmentation between technological innovation and theological scholarship becomes increasingly visible. The findings reveal an urgent need for integrative scholarship.

Case study tensions between algorithmic efficiency and maqāsid priorities signal that ethical evaluation must transcend performance metrics. Technological rationality alone cannot determine normative legitimacy. Moral evaluation requires a framework attentive to justice, compassion, and social welfare.

The findings imply that AI governance in Muslim contexts must explicitly incorporate Islamic ethical principles into regulatory frameworks. Policy design cannot rely solely on imported secular standards without theological scrutiny. Normative alignment becomes essential for legitimacy and public trust.

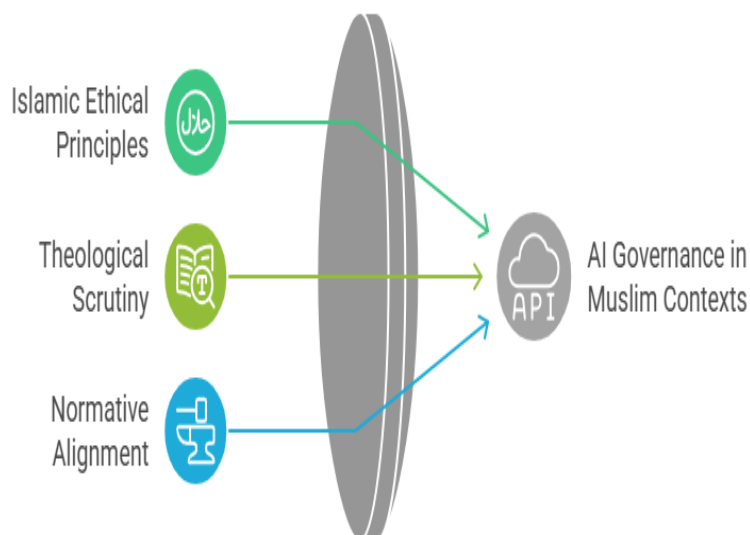


Figure 2. Ethical AI in Muslim Societies

Educational curricula in Islamic studies and computer science should foster interdisciplinary literacy. Scholars of religion require familiarity with technological systems, while engineers must understand ethical anthropology. Collaborative platforms can facilitate this exchange.

Institutional accountability structures should be strengthened to ensure oversight of algorithmic systems. Ethical review boards informed by maqāsid principles could evaluate AI applications in finance, healthcare, and governance. Transparency mechanisms must be coupled with moral evaluation.

Global AI ethics discourse stands to benefit from greater inclusion of Islamic moral philosophy. Pluralistic engagement enriches conceptual diversity and normative depth. The reconstructed framework offers transferable insights beyond Muslim societies.

The dominance of secular paradigms in AI ethics reflects historical trajectories of technological development within Western intellectual contexts. Religious ethical traditions have often been excluded from technical policymaking environments. Structural academic silos contribute to limited cross-disciplinary engagement.

Islamic ethical theory historically evolved in relation to human agency, legal accountability, and communal welfare rather than artificial systems. Classical jurists did not confront autonomous algorithmic infrastructures. Conceptual gaps therefore required reconstruction rather than direct application.

Machine reasoning systems simulate rational processes but do not replicate moral consciousness. Functional similarities may create illusions of equivalence. The absence of volition and awareness fundamentally distinguishes AI from morally accountable persons.

The layered responsibility model emerges because technological systems operate within institutional networks. Causation becomes distributed across designers, operators, and

regulators. Islamic jurisprudential tools for indirect causation provide an adaptable foundation for interpreting such complexity (Aghaei et al., 2023; Balamurugan & Sivasankari, 2025).

Future research should empirically examine how Islamic financial institutions and healthcare systems implement AI governance aligned with maqāsid principles. Comparative case studies could test the robustness of the proposed layered model. Field-based data would complement conceptual reconstruction.

Normative refinement of Islamic ethical categories in relation to emerging technologies such as autonomous weapons and generative AI warrants further exploration. Expanding the analytical scope beyond finance and healthcare would enhance generalizability.

Interdisciplinary research networks connecting scholars of Islamic law, philosophy of technology, and computer science should be institutionalized. Collaborative grants and academic forums could accelerate theoretical and practical innovation. Sustainable dialogue requires structural support.

Policy experimentation informed by reconstructed Islamic ethics could pilot governance frameworks in selected jurisdictions. Practical implementation would reveal strengths and limitations of the model. Iterative refinement based on real-world application would ensure enduring relevance in the age of artificial intelligence.

CONCLUSION

The most significant finding of this study lies in the systematic reconstruction of Islamic moral responsibility in response to machine reasoning, demonstrating that artificial intelligence systems cannot qualify as moral agents under Islamic ethical criteria due to the absence of intention (*niyyah*), consciousness, and legal accountability (*taklīf*). The research establishes a clear ontological distinction between instrumental rationality and morally accountable deliberation, thereby rejecting techno-centric models that attribute quasi-agency to algorithmic systems. A layered model of responsibility is formulated, situating accountability within human agents and institutions involved in the design, deployment, and governance of AI technologies. This finding differs from prevailing discourses that experiment with functional equivalence between human and artificial reasoning, offering instead a theologically grounded framework that preserves moral anthropology while addressing technological complexity.

The primary contribution of this research resides in both conceptual innovation and methodological integration. Conceptually, the study advances a maqāsid-informed, jurisprudentially coherent model of distributed responsibility that bridges classical Islamic categories with contemporary AI ethics theory. Methodologically, the research combines qualitative bibliometric mapping, thematic textual analysis, and critical hermeneutical reconstruction to produce an interdisciplinary normative framework. This integrative approach moves beyond descriptive permissibility analyses and provides a robust ethical architecture applicable to AI governance in finance, healthcare, and public policy. The study contributes to global AI ethics discourse by introducing Islamic moral philosophy as a substantive normative partner rather than a peripheral perspective.

Limitations of this study stem from its predominantly conceptual and normative orientation, relying on secondary literature and constructed case scenarios rather than extensive empirical fieldwork. The layered responsibility model has not yet been systematically tested across diverse institutional contexts or technological configurations. Future research should incorporate empirical case studies within Islamic financial institutions, healthcare systems, and governmental regulatory bodies to evaluate the practical adaptability of the proposed framework. Further theoretical inquiry is also needed to address emerging forms of generative and autonomous AI, including questions of human–AI co-agency, long-term accountability chains, and cross-cultural ethical harmonization in global technological governance.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this manuscript, the author(s) used Google Gemini only to assist with grammatical review. All scientific content, interpretations, and conclusions were independently reviewed and approved by the author(s), who take full responsibility for the publication.

AUTHOR CONTRIBUTIONS

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

Author 2: Conceptualization; Data curation; In-vestigation.

Author 3: Data curation; Investigation.

Author 4: Formal analysis; Methodology; Writing - original draft.

DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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