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EXPLORING THE ETHICAL GOVERNANCE OF ARTIFICIAL INTELLIGENCE FROM AN ISLAMIC ETHICAL PERSPECTIVE

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ABSTRACT

This study aims to examine the intersection of contemporary artificial intelligence (AI) with Islamic ethics, specifically exploring how foundational Islamic ethical principles can guide the integration and governance of AI technologies. Employing a theoretical and conceptual analysis method, the research investigates epistemological and theological considerations related to the application of machine learning algorithms in interpreting sacred Islamic texts. The core theoretical underpinnings guiding this analysis include Tawḥīd (the Oneness of God), which emphasizes harmony and ethical coherence; Maqāṣid al-Sharīʿah (Objectives of Islamic Law), focusing on

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safeguarding fundamental human interests such as faith, life, intellect, progeny, and wealth; Ihsan (Excellence and Benevolence), advocating for moral excellence in technological applications; and ʿAdl (Justice), which demands equity and fairness in technological advancements. The findings indicate that while AI holds significant promise for enhancing societal welfare, education, healthcare, and economic justice within Muslim communities, it presents profound ethical challenges, including algorithmic bias, privacy infringement, human autonomy erosion, and accountability concerns. The study highlights the necessity of rigorous ethical oversight grounded in Islamic ethics to navigate these challenges, proposing that AI applications adhere to principles of justice, transparency, and the preservation of human dignity and autonomy. The implications of this research extend beyond theoretical considerations, underscoring the importance of interdisciplinary collaboration between Islamic scholars, ethicists, policymakers, and technologists. Islamic ethical guidelines can enrich global conversations on AI ethics, ensuring technological innovations align with universally recognized moral standards while promoting social justice and human flourishing.

Keywords: *Artificial Intelligence (AI)*; *Islamic Ethics*; *Ethical Governance*; *Maqasid al-Shariah*; *Algorithmic Accountability*

INTRODUCTION

Artificial Intelligence (AI) has rapidly transitioned from a theoretical construct to an indispensable component of contemporary society, influencing diverse fields such as healthcare, finance, education, and entertainment.[1] Its evolution encompasses a range of sophisticated technologies, including machine learning, neural networks, natural language processing, and robotics, all of which enable machines to perform tasks traditionally associated with human cognition.[2] The capacity of AI to process vast amounts of data, detect intricate patterns, and facilitate decision-making at unprecedented speeds underscores its transformative potential. However, these advancements also introduce complex ethical dilemmas, necessitating critical engagement with broader social, philosophical, and moral implications.[3] Issues such as data privacy, algorithmic bias, job displacement, and the erosion of human autonomy have emerged as focal points in ongoing debates, highlighting the urgent need for a nuanced ethical framework that can guide AI development and usage.[4]

1 A Shaji George, "Preparing Students for an AI-Driven World: Rethinking Curriculum and Pedagogy in the Age of Artificial Intelligence", *Partners Universal Innovative Research Publication* 1.2 (2023), 112–136.

2 Mohsen Soori, Behrooz Arezoo, and Roza Dastres, "Artificial Intelligence, Machine Learning and Deep Learning in Advanced Robotics, a Review", *Cognitive Robotics* 3 (2023), 54–70.

3 Yogesh K Dwivedi et al., "Artificial Intelligence (AI): Multidisciplinary Perspectives on Emerging Challenges, Opportunities, and Agenda for Research, Practice and Policy", *International Journal of Information Management* 57 (2021), 101994.

4 Jess Whittlestone et al., *Ethical and Societal Implications of Algorithms, Data, and Artificial Intelligence: A Roadmap for Research* (*London: Nuffield Foundation*, 2019), 1-59.

The integration of AI into societal structures prompts a reconsideration of ethical principles that govern human interactions with technology. Questions concerning AI moral status, accountability of its developers, and the extent to which AI systems should conform to human values reflect deeper philosophical tensions. Given AI's global impact, formulating ethical guidelines cannot be confined to a singular cultural or philosophical perspective but must instead accommodate diverse traditions and belief systems. Islamic ethics, with its deep-rooted theological and moral traditions, offers a distinctive lens through which these concerns can be examined. Grounded in the Qur'an and Hadith, Islamic moral philosophy has historically engaged with scientific and technological advancements, seeking to align them with spiritual and ethical imperatives. The study of AI through the prism of Islamic ethics thus presents an opportunity to enrich contemporary discussions on the responsible development and application of artificial intelligence.

The historical relationship between Islam and scientific inquiry provides a crucial context for understanding how AI might be approached within an Islamic ethical framework. During the Golden Age of Islam (8th to 14th centuries), Muslim scholars made pioneering contributions to mathematics, astronomy, medicine, and philosophy, often integrating empirical observation with theological reflection.[5] This intellectual tradition was underpinned by the conviction that studying the natural world was an extension of understanding divine will, reinforcing the notion that scientific progress should be guided by moral and ethical considerations.[6] Key Islamic principles such as *Tawḥīd* (the Oneness of God) and the moral responsibilities of stewardship (*khalīfah*) provide foundational ethical precepts that continue to inform contemporary Muslim engagements with science and technology.[7]

5 John L Esposito, *The Oxford History of Islam* (Oxford: Oxford University Press, 1999), 1-749.
6 William W Cobern, "The Nature of Science and the Role of Knowledge and Belief", *Science & Education* 9 (2000), 219–246.

This study explores the intersection between AI and Islamic ethics, examining how the moral principles derived from Islamic teachings can inform the ethical governance of AI technologies in Muslim-majority societies. Furthermore, the study engages with broader discussions in global AI ethics, suggesting that the integration of Islamic moral philosophy into these debates can contribute to the development of fair and equitable AI systems. By situating AI ethics within an Islamic framework, this research highlights the potential for cross-cultural and interreligious dialogue in shaping the ethical landscape of artificial intelligence.

THEORETICAL FRAMEWORK

Islamic Moral Values

At the foundational moral level, two principal Islamic ethical values underpin the discussion of artificial intelligence: *Tawḥīd* and *Iḥsān*. *Tawḥīd* (the Oneness of God) is a core theological and philosophical principle signifying the interconnectedness and coherence of all creation under divine sovereignty. This principle emphasizes maintaining harmony and ethical coherence in human activities, including technological innovations.[8] In the context of AI, *Tawḥīd* demands that technological advancements reflect divine justice and not disrupt social cohesion, exploit vulnerable groups, or lead to ethical fragmentation. Thus, AI development must ensure alignment with an overarching moral order established by God, promoting collective well-being and preserving ethical integrity.

Iḥsān (Excellence and Benevolence) emphasizes moral excellence and benevolence in all human endeavors. In the context of artificial intelligence, *iḥsān* translates into the ethical imperative of developing AI systems characterized by fairness, transparency,

7 Antonio Torres Fernández, "Tawhid and Islamic Philosophy: Exploring the Unity of God in Islamic Logic", *An-Nahdlah: Journal of Islamic Studies* 1.2 (2023), 85–114.

8 Muhammad Sohail Asghar and Kashif Mahmood Saqib, "The Divine Singularity: Unity and Oneness in Islam", *Al-NASR* (2024), 55–62.

and human-centered designs.[9] AI applications guided by *iḥsān* should demonstrably enhance societal welfare, protect against discrimination, and prevent exploitation, ensuring that technological advancements serve humanity compassionately and beneficially.

The Islamic Ethical Considerations

Complementing these moral values are key jurisprudential principles derived from Islamic legal traditions, primarily *maqāṣid al-Sharī'ah* (objectives of Shariah), *'adl* (justice), and *istihsān* (juristic preference), which provide practical guidelines and evaluative frameworks for assessing AI applications. *Maqāṣid al-Sharī'ah* (Objectives of Islamic Law) serves as a jurisprudential guide, outlining five essential objectives: the preservation of faith (*dīn*), life (*nafs*), intellect (*'aql*), progeny (*nasl*), and wealth (*māl*).[10] These objectives establish clear criteria for assessing the ethical legitimacy of AI applications. AI innovations that positively impact healthcare, education, financial inclusion, and overall social welfare align with these jurisprudential objectives. Conversely, technologies that infringe upon privacy, perpetuate biases, or disrupt social stability directly conflict with the essential objectives outlined by *Maqāṣid al-Sharīʿah*.

'Adl provides an ethical-legal foundation mandating fairness and equity across all societal sectors. Within AI ethics, the principle of *'adl* requires systems to be unbiased, transparent, and equitable in distributing technological benefits and responsibilities. AI must avoid reinforcing societal inequalities and ensure inclusive access irrespective of socio-economic differences. Jurisprudentially, this translates into legal and policy measures

9 Mustafa Taha, "Public Relations Education in an Arab/Islamic Context", in *The IAFOR International Conference on Education–Dubai 2017*, The InterContinental Festival City Event Centre, Dubai, UAE, 26 - 28 February 2017), n.p.

10 Muhammad Zahid Yasin et al., "The Purposeful Life: An Exploration of Life's Priorities According to the Objectives of Islamic Shariah", *Remittances Review* 9.2 (2024), 574–593.

mandating accountability, transparency, and non-discrimination in AI system development and deployment.[11]

Istihsān adds flexibility and adaptability within the jurisprudential framework, enabling Islamic scholars and policymakers to navigate novel and complex technological scenarios effectively. *Istiḥsān* permits dynamic responses to ethical dilemmas introduced by AI, prioritizing societal welfare and moral integrity over rigid legalistic interpretations.[12] It supports ethical decision-making in ambiguous or unprecedented AI contexts, ensuring technological progress remains consistent with evolving ethical standards and practical realities.

Integrated Ethical Application to AI

The combined application of these moral values and jurisprudential principles allows a nuanced Islamic ethical analysis of AI. Issues such as algorithmic bias, data privacy, and accountability are examined through this dual lens, ensuring moral integrity and jurisprudential compliance. For instance, bias in AI violates both the ethical principle of *Tawḥīd* (as it disrupts societal harmony) and the jurisprudential mandate of '*Adl* (as it infringes upon justice and equity). Similarly, privacy breaches contravene the moral commitment to *Iḥsān* (compassion and respect for human dignity) and the jurisprudential objectives of *Maqāṣid al-Sharīʿah* (preservation of individual dignity and personal autonomy).

METHODOLOGY

Conceptual and Theoretical Analysis

The research adopts a conceptual approach to systematically analyze key Islamic ethical principles and assess their relevance and

11 Shabana Kausar, Ali Raza Leghari, and Abdul Salam Soomro, "Analysis of the Islamic Law and Its Compatibility with Artificial Intelligence as a Emerging Challenge of the Modern World", *Annals of Human and Social Sciences* 5.1 (2024), 99–114.
12 Mohammad Hashim Kamali, "Methodological Issues in Islamic Jurisprudence", *Arab Law Quarterly* 11.1 (1996), 3–33.

applicability to contemporary AI technologies. The theoretical framework guiding this analysis integrates core Islamic ethical concepts such as *Tawḥīd*, *Maqāṣid al-Sharīʿah*, *iḥsān*, *ʻadl*, and *maṣlaḥah* (public welfare). Each concept is analyzed within the context of AI developments to determine ethical congruences and potential conflicts.

Textual Interpretation of Islamic Primary Sources

To ground the study firmly within Islamic ethics, textual interpretations of primary Islamic sources, primarily the Qur'an and Hadith, are incorporated into the methodology. The Qur'an is utilized extensively as the foundational ethical reference, providing insights into principles such as justice, human dignity, accountability, and privacy. Specific verses, such as those affirming human dignity and justice inform the ethical assessment criteria applied to AI. The Qur'an says:

وَلَقَدْ كَرَّمْنَا بَنِيٓ

We have certainly honoured the children of Adam (Al-Isra 17:70)

يَٰٓأَيُّهَا ٱلَّذِينَ ءَامَنُواْ كُونُواْ قَوَّٰمِينَ بِٱلْقِسْطِ

O you who have believed, be persistently standing firm in justice (Al-Nisa 4:135).

In addition, selected Hadith texts are mentioned to elucidate ethical positions concerning autonomy, privacy, justice, and accountability, reinforcing the ethical framework applied to AI technologies.

Critical Examination of AI Ethics Literature

The study further engages with secondary academic sources and contemporary research on AI ethics to contextualize Islamic ethical discussions within the broader global discourse. Scholarly contributions from Islamic ethics literature (e.g., works by Kamali,

Raquib, and Sachedina) are reviewed to ensure accurate representation of Islamic ethical principles and their contemporary applications.[13] Concurrently, prominent contemporary resources on AI ethics, such as literature addressing algorithmic bias (e.g., Ferrara, Modi, Mensah),[14] privacy and surveillance (Elliott & Soifer, Fontes et al.),[15] accountability and transparency (Whittlestone et al., Ntoutsi et al.),[16] and economic implications (Ernst et al., Feijóo et al.) are critically examined.[17] This comprehensive literature review situates Islamic ethical discussions

13 Kamali Amana Raquib et al., "Islamic Virtue-Based Ethics for Artificial Intelligence", *Discover Artificial Intelligence* 2.1 (2022), 11. ; Amana Raquib, *Islamic Ethics of Technology: An Objectives'(Maqasid) Approach* (New York City: The Other Press, 2015), 1-404. ; Abdulaziz Sachedina, *Islamic Biomedical Ethics: Principles and Application* (New York City: OUP USA, 2009), 1-280.

14 Emilio Ferrara, "Fairness and Bias in Artificial Intelligence: A Brief Survey of Sources, Impacts, and Mitigation Strategies", *Sci* 6.1 (2023), 3. ; Tejaskumar B Modi, "Artificial Intelligence Ethics and Fairness: A Study to Address Bias and Fairness Issues in AI Systems, and the Ethical Implications of AI Applications", *Revista Review Index Journal of Multidisciplinary* 3.2 (2023), 24–35. ; George Benneh Mensah, "Artificial Intelligence and Ethics: A Comprehensive Review of Bias Mitigation, Transparency, and Accountability in AI Systems", *Preprint* 12.9 (2023), n.p.

15 David Elliott and Eldon Soifer, "AI Technologies, Privacy, and Security", *Frontiers in Artificial Intelligence* 5 (2022), 826737. ; Catarina Fontes et al., "AI-Powered Public Surveillance Systems: Why We (Might) Need Them and How We Want Them", *Technology in Society* 71 (2022), 102137.

16 Whittlestone et al., *Ethical and Societal Implications of Algorithms, Data, and Artificial Intelligence: A Roadmap for Research*, 1-74. ; Eirini Ntoutsi et al., "Bias in Data-driven Artificial Intelligence Systems—An Introductory Survey", *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery* 10.3 (2020), e1356.

17 Ekkehardt Ernst, Rossana Merola, and Daniel Samaan, "Economics of Artificial Intelligence: Implications for the Future of Work", *IZA Journal of Labor Policy* 9.1 (2019), 1-35. ; Claudio Feijóo et al., "Harnessing Artificial Intelligence (AI) to Increase Wellbeing for All: The Case for a New Technology Diplomacy", *Telecommunications Policy* 44.6 (2020), 101988.

within ongoing global AI ethics conversations, highlighting both distinct and complementary perspectives.

ETHICAL CHALLENGES OF AI IN THE CONTEXT OF ISLAMIC ETHICS

Autonomy and Moral Agency

A fundamental tenet of Islamic ethics is human autonomy, grounded in the belief that individuals possess free will and bear accountability for their actions.[18] The Quran and Hadith emphasize the importance of intention (*niyyah*) in ethical decision-making, underscoring that morally significant actions must result from conscious and deliberate choices. However, the integration of AI, especially in domains involving automated decision-making such as healthcare, finance, and legal adjudication, poses significant challenges to this conception of autonomy. When AI algorithms assume critical decisions without explicit consent or comprehensive understanding from individuals, they potentially compromise moral agency. From an Islamic ethical perspective, this undermines the principle of accountability before God, as it reduces human involvement and intentionality in morally significant choices.

This issue is further complicated by the opaque nature of AI-driven decisions. Many AI systems function as "black boxes," utilizing complex machine-learning models that remain poorly understood even by their developers. Such opacity conflicts with Islamic ethics, particularly the principle of *'adl*, which requires transparency and equitable treatment. When AI-driven biases in criminal justice or financial lending produce unjust outcomes, individuals are deprived of their right to fair treatment and informed consent, violating the moral imperative of human dignity and autonomy. Reliance on AI for decision-making thus risks fostering moral complacency, leading individuals to abdicate ethical

18 Mohammad Yousuf Rathor, Azarisman Shah, and Mohammad Hadzri Hasmoni, "Is Autonomy a Universal Value of Human Existence? Scope of Autonomy in Medical Practice: A Comparative Study between Western Medical Ethics and Islamic Medical Ethics", *IIUM Medical Journal Malaysia* 15.1 (2016), 81-88.

responsibilities to algorithmic systems, contrary to the Islamic imperative for personal engagement and conscious moral reasoning.

Privacy and Human Dignity

Privacy represents another critical ethical concern in Islamic ethics challenged by contemporary AI technologies. The Quran explicitly prohibits unwarranted intrusion into private lives, commanding believers to avoid espionage and invasive surveillance. These teachings directly contrast with current AI-driven surveillance practices, such as facial recognition and predictive analytics, which facilitate unprecedented intrusions into personal lives. Such technologies risk eroding individual freedoms and autonomy, fundamental values vigorously protected by Islamic ethical principles.[19]

From the perspective of Islamic ethics, pervasive surveillance through AI represents a profound breach of the principle of *amānah* (trust). Islamic teachings mandate that authority must be exercised responsibly, safeguarding human dignity and personal autonomy. AI-driven surveillance, particularly without transparent ethical oversight, risks disproportionately targeting marginalized communities, exacerbating existing social inequalities. These ethical concerns align with broader critiques highlighting AI's misuse potential, especially in authoritarian regimes. To align AI deployment with Islamic ethics, rigorous transparency, accountability, and ethical governance frameworks must be established, ensuring technological progress does not compromise fundamental moral and ethical principles, including privacy and dignity.

Algorithmic Bias and Social Justice

AI systems' susceptibility to bias constitutes a significant ethical challenge, particularly within an Islamic ethical framework that prioritizes *'adl* and equity. AI algorithms trained on historically

19 Thilo Hagendorff et al., "Speciesist Bias in AI: How AI Applications Perpetuate Discrimination and Unfair Outcomes against Animals", *AI and Ethics* 3.3 (2023), 717–734.

biased datasets can yield discriminatory outcomes in employment decisions, criminal justice systems, and access to social services.[20] This scenario explicitly contradicts Islamic ethical directives, which stress fairness and impartiality, as outlined in the Quranic injunction to uphold justice even against one's self-interest.

Addressing algorithmic bias from an Islamic ethical perspective necessitates a comprehensive and morally rigorous approach. Ethical principles derived from Islamic teachings, such as *iḥsān*, further advocate for developing fair, transparent, and human-centered technologies. Ethical considerations must, therefore, transcend market-driven imperatives, actively integrate diverse perspectives and mitigating discriminatory biases. This involves diversifying AI training datasets, enhancing algorithmic transparency, and promoting interdisciplinary cooperation among technologists, ethicists, and Islamic scholars. Ensuring AI fairness thus emerges as a moral obligation deeply embedded within Islamic ethical imperatives to uphold social justice and protect vulnerable populations.

Accountability and Moral Responsibility

The complexity and opacity of AI technology significantly challenge traditional Islamic conceptions of accountability (*muḥāsabah*). Islamic ethics emphasize individual accountability before God for every moral action, a principle foundational to Islamic moral conduct. However, AI-driven decision-making complicates assigning clear responsibility, distributing accountability among developers, institutions, and end-users.[21] The "black box" nature of many AI systems exacerbates this difficulty, making it problematic to pinpoint responsibility when AI systems cause harm or yield unethical decisions.[22]

20 Ntoutsi et al., "Bias in Data-driven Artificial Intelligence Systems—An Introductory Survey", 277-292.
21 Samuli Laato et al., "How to Explain AI Systems to End Users: A Systematic Literature Review and Research Agenda", *Internet Research* 32.7 (2022), 1–31.
22 Mensah, "Artificial Intelligence and Ethics: A Comprehensive Review of Bias Mitigation, Transparency, and Accountability in AI Systems", n.p.

To adhere to Islamic ethical principles, accountability mechanisms in AI must become explicit, structured, and transparent. This entails clearly defining the ethical responsibilities of developers, policymakers, and end-users within a framework rooted in Islamic jurisprudential reasoning (*Istiḥsān*). Transparent accountability frameworks must ensure that decisions made by AI systems remain aligned with moral obligations articulated in Islamic ethics, particularly regarding justice and equity. Collaborative oversight by Islamic scholars, ethicists, and technologists is essential to ensure AI's ethical governance remains faithful to principles of moral responsibility and accountability central to Islamic ethical teachings.

COMPATIBILITY OF AI WITH ISLAMIC ETHICS

Justice (‘*Adl*) and AI

Justice, encompassing legal fairness, social equity, and economic justice, are foundational pillars of Islamic ethics. The Qur'an explicitly commands adherence to justice:

يَٰٓأَيُّهَا ٱلَّذِينَ ءَامَنُواْ كُونُواْ قَوَّٰمِينَ بِٱلْقِسْطِ

> *O you who have believed, be persistently standing firm in justice, witnesses for Allah, even if it be against yourselves or parents and relatives* (al-Nisa 4:135).

This principle necessitates a thorough evaluation of AI, particularly in relation to issues such as algorithmic bias, discrimination, and social inequality.

For example, AI-driven judicial systems employing algorithms for sentencing decisions have attracted criticism for perpetuating racial and socioeconomic biases. Such biases directly

contravene the Islamic mandate for impartial justice and fairness.[23] Consequently, AI systems must incorporate transparency, rigorous accountability, and continuous monitoring to align with Islamic ethics to eliminate biases and ensure fairness. Ethically, such measures uphold *'adl*, morally reinforce social justice, and jurisprudentially align AI applications with the principles outlined in Islamic law.

Economic Justice and Job Automation

The Islamic concept of justice extends beyond individual rights to societal and economic equity. AI-driven automation, while potentially enhancing productivity and efficiency, risks exacerbating economic disparities through job displacement, especially affecting lower-income populations lacking requisite technological skills. Prophet Muhammad (PBUH) underscored the ethical imperative of economic justice: "He is not a believer whose stomach is filled while the neighbour to his side goes hungry".[24]

To maintain compatibility with Islamic ethics, policymakers must adopt comprehensive frameworks that foster equitable AI advancement, promoting education, training, and fair access to technological benefits. Ethically, AI's economic outcomes must not deepen societal inequalities; morally, monetary policies should reflect compassion and equity; and jurisprudentially, regulatory measures must align with the overarching objective of Shariah to uphold societal welfare.

Protection of Life (*Ḥifẓ al-Nafs*)

Protecting life is a critical component of Islamic ethics, anchored firmly in the Qur'anic injunction:

وَلَا تَقْتُلُواْ ٱلنَّفْسَ ٱلَّتِى حَرَّمَ ٱللَّهُ إِلَّا بِٱلْحَقِّ

23 Julia Angwin et al., "Machine Bias," accessed 18 August 2024, https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing.

24 Chapter 61: A person should not eat his fill without seeing to his, Book 6: Neighbours; https://sunnah.com/adab:112; *Al-Adab Al-Mufrad* 112.

> *And do not kill the soul which Allah has forbidden, except by right* (Al-Isra 17:33).

AI applications, particularly in healthcare, align strongly with this principle, exemplified by innovations in AI-assisted diagnostics, robotic surgeries, and predictive health analytics. These technologies enhance diagnostic accuracy and patient outcomes, fulfilling the Islamic moral imperative of preserving life. However, ethical alignment requires stringent oversight to ensure reliability and safety in AI-driven healthcare solutions. AI technologies must be subjected to rigorous ethical evaluations to prevent harm, aligning with Islam's moral and jurisprudential principles of Islam that prioritize human life and dignity above technological advancement.

CASE STUDIES

AI in Healthcare: Balancing Technological Innovation and Ethical Integrity

The integration of AI in healthcare presents significant benefits, including increased diagnostic accuracy, personalized treatments, and improved patient outcomes. A pertinent case study of implementing AI-driven diagnostic systems in a predominantly Muslim country underscores these technological advantages. In this context, the ethical principle of *ḥifẓ al-nafs*, a fundamental aspect of *Maqāṣid al-Sharīʿah*, clearly aligns with the adoption of AI, given its potential to reduce human errors and enhance medical precision.[25]

However, alignment with *Ḥifẓ al-Nafs* does not eliminate other ethical dilemmas, particularly those associated with patient autonomy, privacy, and humanistic care. Islam places great value on human interactions marked by empathy, compassion, and trust, as emphasized by the Qur'an and Hadith. The increased reliance on AI-driven diagnostics risks diminishing these critical humanistic elements, potentially conflicting with the principle of Ihsan

25 Eta S Berner and Mark L Graber, "Overconfidence as a Cause of Diagnostic Error in Medicine", *The American Journal of Medicine* 121.5 (2008), S2–23.

(excellence and benevolence), which underscores compassionate caregiving and human dignity.

Furthermore, the ethical issue of patient data privacy requires careful consideration within Islamic ethics, especially in light of increasing data breaches and unauthorized use of personal information. Islam views safeguarding personal information as a moral obligation,[26] invoking the principle of *'adl* to ensure patient data is securely protected and transparently managed. Therefore, ethical jurisprudential measures must therefore include robust data security protocols that ensure alignment with Islamic values of privacy, confidentiality, and dignity.

Economically, AI-driven healthcare solutions present another ethical challenge under the Islamic principle of *Ḥifẓ al-Nafs*. Although AI can streamline healthcare efficiency, it may simultaneously increase healthcare costs, thus limiting access for underprivileged populations. This inequitable distribution conflicts with Islamic principles advocating economic justice and social equity, demanding careful consideration and balanced policymaking to ensure technological benefits are universally accessible.

AI in Islamic Finance: Navigating Transparency, Uncertainty, and Economic Justice

Islamic financial services increasingly adopt AI technologies for optimizing investment strategies, fraud detection, and improved customer experiences. A case study of a Shariah-compliant investment firm employing AI algorithms illustrates this phenomenon, demonstrating enhanced profitability and market efficiency through predictive analytics and algorithm-driven trading. However, despite these benefits, several ethical concerns emerge from an Islamic ethical viewpoint. Foremost among these is the issue of *gharar* (excessive uncertainty), prohibited in Islamic financial jurisprudence due to its potential to lead to unjust outcomes and disputes. AI-driven financial predictions often involve complex models that obscure decision-making processes, introducing

26 Al-Hasan Al-Aidaros, Faridahwati Mohd Shamsudin, and Kamil Md Idris, "Ethics and Ethical Theories from an Islamic Perspective", *International Journal of Islamic Thought* 4 (2013), 1–13.

elements of uncertainty and speculative risk that may contradict the principles of transparency and ethical clarity mandated by Shariah. Moreover, algorithmic opacity poses significant ethical challenges, as Islam emphasizes accountability and transparency (*shafāfiyyah*) in all business transactions to prevent exploitation and ensure *'adl*. In opaque AI-driven processes, investors lack full insight into decision-making methodologies, potentially infringing upon the ethical rights to informed consent and fair treatment. Aligning AI financial practices with Islamic ethical standards thus requires ensuring transparency, clearly defined risk management strategies, and ethical oversight by qualified Shariah scholars. This approach safeguards against unethical speculative practices and aligns AI-enhanced financial management firmly with Islamic principles of fairness, transparency, and economic justice.

Central to AI financial systems, predictive modeling inherently introduces uncertainty, potentially conflicting with Islamic jurisprudential principles prohibiting *gharar*.[27] Islamic finance mandates transparency and equitable risk-sharing, demanding AI-driven financial systems clearly disclose decision-making processes and operational logic. Failure to ensure transparency contradicts ethical mandates of *'adl* and honesty, necessitating AI governance frameworks that align with Shariah compliance.

In addition, a significant ethical concern regarding economic justice, particularly the potential concentration of financial power and resources within entities controlling AI-driven financial technologies. This issue opposes the Islamic ethical principle of equitable wealth distribution and social justice. Ensuring AI financial systems incorporate inclusivity, transparency, and accountability is thus not merely a technical concern but a moral and jurisprudential imperative under Islamic ethical frameworks.

27 Klemens Katterbauer and Philippe Moschetta, "A Deep Learning Approach to Risk Management Modeling for Islamic Microfinance", *European Journal of Islamic Finance* 9.2 (2022), 35–43.

Autonomous Vehicles (AVs): Ethical Accountability and Social Equity

The advent of autonomous vehicles (AVs) in Muslim-majority cities provides a critical case study in examining accountability, decision-making ethics, and the socio-economic impacts of AI. AV technology, designed to reduce accidents and improve traffic efficiency, directly aligns with the Islamic principle of *ḥifẓ al-nafs* by potentially reducing fatalities and injuries.

However, AVs also introduce complex ethical and jurisprudential challenges, particularly concerning accountability. Islamic ethical traditions emphasize individual moral accountability and clear assignment of responsibility. AV technology, characterized by distributed responsibilities among developers, manufacturers, and users, complicates traditional notions of accountability. Moreover, AI systems lack human intentionality, challenging the Islamic ethical requirement that moral agency should accompany accountability.

AVs equipped with artificial intelligence (AI), must occasionally respond instantly to unavoidable accidents, requiring complex moral judgments. From an Islamic ethical standpoint, such scenarios raise critical concerns, especially around two core principles: the minimization of harm and fairness. Islamic ethics emphasizes the sanctity of human life, guided by the principle of *Ḥifẓ al-Nafs*. In accident situations where harm is inevitable, Islamic jurisprudence (Fiqh) directs that harm must be minimized, advocating for decisions that result in the least possible damage or loss of life. However, quantifying and embedding this principle into AI decision-making algorithms presents substantial ethical complexity. Decisions must balance multiple considerations simultaneously, such as the number of lives at risk, the extent of potential injury, and other situational specifics. In addition, fairness requires that AV algorithms must not systematically prioritize certain individuals over others based on discriminatory factors like social status, race, or economic background. Islamic ethics insists on impartiality and justice, mandating that any form of algorithmic bias or discriminatory decision-making be explicitly prevented. Implementing these ethical values into AV technology thus requires comprehensive jurisprudential guidance and interdisciplinary

collaboration among Islamic scholars, ethicists, technologists, and policymakers. Such dialogue ensures that the moral frameworks used in AV algorithms authentically reflect Islamic ethical principles and remain adaptable to real-world complexities.

The broader socio-economic implications of AVs also raise significant ethical concerns from an Islamic perspective, especially regarding the principle of *ʻadl* and *maṣlaḥah*. One critical aspect often overlooked is the integration of Electric Vehicles (EVs) as part of autonomous transportation systems. Although EVs promise environmental benefits, their widespread adoption, when combined with AV technology, may inadvertently exacerbate economic inequalities by displacing traditional automotive industries and professional drivers.

From an Islamic ethical viewpoint, this economic displacement poses significant challenges. Islamic ethics, grounded firmly in the *Maqāṣid al-Sharīʿah*, emphasizes preserving wealth and ensuring equitable distribution of resources. The potential job loss among drivers due to the rapid deployment of AVs and EVs conflicts directly with the ethical imperative of providing stable livelihoods and preventing economic hardship. Islamic jurisprudence explicitly advocates that any technological advancement should not lead to widespread harm or unfair economic disadvantage (*ḍarar*), underscoring the need for responsible and balanced technological implementation.

Furthermore, Islamic jurisprudential principles require policy-makers and technology developers to proactively implement governance measures that mitigate harm and promote social equity. Without appropriate interventions—such as retraining programs, equitable economic redistribution mechanisms, and phased implementation strategies—EV integration within autonomous systems may inadvertently violate Islamic ethical obligations, leading to greater societal inequity. Hence, ethically informed policy frameworks aligned with Islamic jurisprudential standards must be urgently developed and enforced to ensure technological advancements harmonize with the broader Islamic objectives of justice, fairness, and collective societal well-being.

ISLAMIC ETHICAL GUIDELINES FOR AI DEVELOPMENT

Adherence to *Maqāṣid al-Sharīʿah*

A foundational principle for aligning AI technologies with Islamic ethics is the adherence to *Maqāṣid al-Sharīʿah*, which emphasizes preserving five fundamental values: life, intellect, religion, progeny, and wealth.[28] AI applications should explicitly prioritize these objectives, thus ensuring that technology rather than compromises human welfare. For instance, AI-driven innovations in healthcare align clearly with preserving life by improving diagnostic accuracy, patient care, and reducing medical errors, consistent with the Islamic ethical objective of safeguarding life. Conversely, AI applications in finance must actively prevent exploitative practices, ensuring equitable distribution of wealth. Evaluating AI through the holistic lens of *Maqāṣid* ensures technologies are ethically consistent and beneficial to society.

Upholding Justice (*ʻAdl*)

Central to Islamic ethics is the principle of *ʻadl*, mandating that AI technologies should be designed and employed to uphold fairness, equality, and transparency. This necessitates addressing biases embedded in AI algorithms, as such biases often perpetuate existing societal inequalities, thereby conflicting directly with the Islamic imperative of justice. To adhere to ʻ*adl*, AI systems must proactively mitigate biases through transparent data practices and inclusive algorithm design. This ethical approach requires collaboration between Islamic scholars, ethicists, and AI specialists, creating systems that promote equity and avoid reinforcing systemic injustice. Aligning AI practices with *ʻAdl* ensures these technologies function ethically as instruments of fairness.

28 Mohamad Aniq Aiman Alias et al., "The Integration of Five Main Goals of Shariah in The Production of Science and Technology for Human Well-Being", *AL-MAQASID: The International Journal of Maqasid Studies and Advanced Islamic Research* 5.1 (2024), 1–16.

Respect for Human Dignity

The Qur'anic affirmation:

وَلَقَدْ كَرَّمْنَا بَنِيٓ ءَادَمَ

> *We have certainly honoured the children of Adam* (Al-Isra 17:70)

underscores the importance of respecting human dignity in AI development.[29] AI technologies must, therefore, safeguard personal autonomy, privacy, and informed consent, explicitly aligning with this Islamic ethical mandate. For example, AI-powered surveillance systems or decision-making tools should prioritize explicit user consent and maintain privacy protections to avoid infringing upon individual autonomy.[30] AI should empower human agency and decision-making capabilities rather than diminish them. Thus, ensuring respect for human dignity remains fundamental for the ethical integration of AI within Muslim-majority contexts and beyond.

Ensuring Transparency and Accountability

Islamic ethics emphasizes accountability and transparency, principles critically important in the ethical governance of AI technologies.[31] Transparency requires AI systems to be openly understandable, clearly documenting how decisions are made, the nature of utilized datasets, and potential impacts on society. Accountability demands mechanisms to hold developers and

29 Mohd Istajib Mokhtar and Syafiq Munir Ismail Munir, *Revisiting the Fiqh of Halal-Haram Animals: An Analysis on Malaysian Fatwa Relating to Animal Care and Use*, (International Halal Management Conference (IHMC) 2017, Sejong University, South Korea), 151-161.

30 Nurul Ain Norman and Mohammad Eisa Ruhullah, "Exploring the Ethical Dimensions of Fiqh: The Role of the Soul in Achieving Maqāṣid Al-Sharī 'ah", *Al-Shajarah: Journal of the International Institute of Islamic Thought and Civilization (ISTAC)* 29.1 (2024), 47–77.

31 Ferdinand Salomo Leuwol et al., "Adaptive AI Framework for Dynamic Sharia Compliance in Indonesian Islamic Finance: An Ethical and Religious Perspective", *International Journal Of Financial Economics* 1.1 (2024), 8–25.

deployers responsible for AI's ethical consequences, especially when systems negatively impact marginalized or vulnerable populations. For example, in the case study involving AI-driven diagnostic systems in a hospital in a predominantly Muslim country, the lack of transparency in how diagnostic decisions were generated raised concerns among patients and healthcare professionals. This opacity undermined trust and challenged the Islamic ethical imperative of *muḥāsabah*, as it became difficult to identify who was morally and legally responsible for misdiagnoses. Establishing independent oversight bodies comprising Islamic scholars, ethicists, and AI specialists would ensure rigorous ethical scrutiny in such contexts, promoting transparency and responsibility, and aligning AI governance with Islamic jurisprudential considerations.

Preventing Harm (*Ḍarar*) and Promoting Public Welfare (*Maṣlaḥah*)

The Islamic ethical maxim, "Harm shall neither be inflicted nor tolerated" (*Lā ḍarar wa lā ḍirār*), directs AI development towards minimizing risks and maximizing societal benefits. Ethical AI practices necessitate continual risk assessments addressing not only direct issues such as data breaches or biased algorithms but also broader societal implications, including economic displacement or erosion of interpersonal relationships. Thus, AI development requires comprehensive regulatory frameworks, informed by Islamic ethics, to ensure technologies are proactively designed for the collective good, minimizing harm, and enhancing societal welfare in alignment with *maṣlaḥah*.

Engaging Islamic Scholarly Expertise (*Fuqahā'*)

Islamic scholars play a critical role in the ethical assessment and governance of AI, providing insights into the moral and jurisprudential dimensions of these technologies. Collaborative engagement between scholars and AI practitioners is essential for developing Fiqh-based ethical guidelines addressing emerging AI challenges, such as autonomous decision-making and privacy concerns. Regular interdisciplinary dialogue ensures that ethical standards remain responsive to technological developments and firmly rooted in Islamic moral teachings, thus maintaining relevance and ethical rigor within contemporary contexts.

Integrating Islamic Ethics into AI Policy

Embedding Islamic ethical principles within AI policy frameworks is essential for ensuring AI technologies align with moral and social values, especially in Muslim-majority nations. Policymakers must develop regulations informed explicitly by *Maqāṣid al-Sharīʿah*, *ʿAdl*, and *Maṣlaḥah*, ensuring ethical considerations are foundational to national AI strategies. Establishing dedicated regulatory bodies comprising Islamic scholars and AI specialists is crucial for oversight and guidance. Promoting digital literacy initiatives among Muslim communities further ensures ethically conscious engagement with AI. International collaboration involving Islamic ethical perspectives enriches global AI ethics discussions, fostering an inclusive approach to justice, equity, and human flourishing through AI technologies.

CONCLUSION

The findings of the research reveal both convergences and divergences between AI and Islamic ethics, highlighting the multifaceted nature of their relationship. On one hand, AI technologies have the potential to significantly enhance societal welfare by improving healthcare, education, and economic development, thus aligning with the Islamic principle of promoting the common good (*Maṣlaḥah*). However, the study also underscores the ethical concerns that arise from AI's increasing presence in daily life, particularly issues related to privacy, bias, and the potential erosion of human autonomy. These challenges present significant ethical dilemmas that must be addressed from an Islamic perspective, necessitating a balanced approach that considers both the opportunities and the risks associated with AI.

The implications of this study are far-reaching, particularly for Muslim-majority societies and the global Islamic community as AI continues to integrate into various aspects of life. The research emphasizes the urgent need for a collaborative effort among Islamic scholars, ethicists, and technologists to develop guidelines that ensure AI technologies adhere to Islamic ethical principles. This includes tackling critical issues such as the ethical use of AI in surveillance, mitigating biases in AI algorithms, and safeguarding

individual and communal rights. Moreover, the study calls for educational initiatives to prepare the next generation of Muslim scholars and professionals to navigate the ethical complexities of AI. As AI continues to shape the future, it is imperative that its development and application are informed by ethical principles that uphold human dignity, justice, and the common good—principles that are deeply embedded in Islamic ethics. The study also highlights the necessity for ongoing research in this area to explore the ethical implications of AI further, ensuring that its evolution remains in harmony with the values and principles of Islam.

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