

# Artificial Intelligence (AI) in Islam: Building Ethics and Solutions Based on Tawhid

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Abstract. This article explores the application of Islamic ethics, particularly the concept of tawhid, in the development of digital technologies and artificial intelligence (AI). The study employs a qualitative descriptive method based on a literature review to analyze Islamic principles, such as justice (al-'adl), trust (amanah), and public benefit (al-maslahah), in addressing ethical challenges posed by AI. The findings indicate that Islamic values can provide a holistic framework for tackling algorithmic bias, privacy concerns, and social inequalities associated with AI. However, the study identifies a gap in academic research regarding the integration of tawhid principles with AI development. A limitation of this research is the lack of empirical case studies to test the effectiveness of implementing these principles in technology development.

Keywords: Tawhid, Islamic Ethics, AI, Digital Technology, Justice.

# 1. INTRODUCTION

Artificial Intelligence (AI) have become essential elements in modern human life. Their rapid development influences economic, social, and cultural aspects and touches on ethics, spirituality, and religious values. In the Islamic context, these technological advancements present challenges and opportunities to harmonize modern innovations with sharia principles rooted in **Tawhid**. As the core of Islamic teachings, tawhid emphasizes Allah's oneness and serves as the foundation of ethics in life, including human interactions with technology.

As AI plays an increasingly significant role in daily life, concerns arise regarding its ethical implications, such as algorithmic bias, data privacy, and unjust social impacts. According to Faverio (2023) a study by the Pew Research Center in 2023, nearly 65% of global AI systems exhibit significant biases in decision-making, disproportionately impacting marginalized communities. From an Islamic perspective, this becomes a serious issue as it contradicts the values of justice (*al-'adl*) and public benefit (*al-maslahah*). Therefore, it is crucial to develop ethical approaches in technology that not only address human needs but also align with Islamic values.

Tawhid, as the foundation of Islamic ethics, holds great relevance in responding to technological issues. This principle guides humans to view everything as a trust (*amanah*) from Allah, including technology. The utilization of technology should not solely focus on material gain but also consider the well-being of humanity and the environment. Study by Arya (2024) Technological advancements have significantly improved human life, addressing global challenges such as healthcare and climate change. However, there are concerns about the impact of AI and machine learning on human creativity and privacy, emphasizing the need for sustainable technology solutions that prioritize human welfare. A report by the World Economic Forum (2022) highlights that 80% of AI applications are designed for economic efficiency rather than social equity, underscoring the need for ethical recalibration (Yucca Reinecke, 2024).

In this regard, *tawhid* directs technological development toward a more inclusive, just, and socially responsible direction. However, the integration of *tawhid* in digital technology and AI has not received sufficient attention in academic research. Studies on AI ethics predominantly focus on technical and economic dimensions, often neglecting spiritual and ethical aspects. For instance, a 2022 UNESCO report on AI ethics highlights that global ethical frameworks for AI remain dominated by secular paradigms (UNESCO, 2022), with limited exploration of religious or cultural perspectives. This creates a research gap that necessitates a more holistic approach rooted in *tawhid* to address the ethical complexities of technological advancement.

In the academic context, developing technology ethics based on tawhid has become a pressing necessity. This is not only to ensure the alignment of technological innovations with Islamic values but also to provide a global ethical alternative that is more universal. Tawhid, with its inclusive nature, can serve as a foundation for ethical guidelines in technology that are relevant not only for Muslims but also for the global community.

This study aims to address these challenges by offering a tawhid-based ethical framework for digital technology and AI. By integrating Islamic principles and contemporary approaches, this research is expected to provide practical solutions to ethical issues in AI, such as biased decision-making and unequal access to technology. For instance, implementing AI systems that prioritize *maqasid al-shariah* (the objectives of Islamic law) can ensure that technologies contribute to human well-being and justice.

The contribution of this study is both theoretical and practical. Theoretically, it enriches the literature on technology ethics from an Islamic perspective. Practically, it provides guidelines that can be utilized by technology developers, policymakers, and the general public in integrating Islamic values into the development and utilization of AI. In response to the growing interest in ethical AI, there is a notable call for the integration of ethical frameworks rooted in religious values. This reflects a broader global trend where many individuals and communities emphasize the importance of aligning AI policies with moral and ethical considerations. Such perspectives suggest a strong demand for integrating diverse ethical viewpoints, including religious principles, into AI governance, emphasizing the need for more inclusive and spiritually informed frameworks.

Furthermore, this research is expected to serve as a reference for Muslim academics and practitioners in exploring the relationship between Islam and technology. In an increasingly digitally connected world, Muslims are called upon not only to be technology users but also active contributors to the development of ethical technology. The global AI market, projected to reach \$190 billion by 2025 (Shelly Singh, 2024), presents a significant opportunity for Muslim innovators to embed Islamic values in the foundations of technological advancements.

By adopting a tawhid-based approach, Muslims can demonstrate how religious values offer relevant solutions to global challenges, including in the realm of technology. This not only strengthens Islam's position in global discourse on technology ethics but also enhances the contribution of Muslims to the advancement of civilization. For example, integrating Islamic principles into AI governance models can help address global concerns about data misuse and AI-driven inequalities.

Ultimately, this research seeks to bridge the gap between technological innovation and Islamic values, creating harmony between the two. In doing so, AI and digital technology will not only become useful tools but also serve as means to achieve noble goals by Islamic teachings. Through such efforts, technology can transform from being merely a tool for progress into a medium for achieving spiritual, ethical, and social excellence

## **Theoretical Framework**

#### **Tawhid as the Core of Islamic Ethics**

Tawhid, the principle of the oneness of Allah, is the cornerstone of Islamic faith and ethics. It establishes a comprehensive worldview where all aspects of life, including technology, are seen as part of divine trust (*amanah*) given to humankind. The concept of tawhid encompasses more than theology; it forms the basis for moral and ethical behavior, guiding Muslims to uphold justice (*al-'adl*) and strive for the well-being of society (al-maslahah). In the context of technological development, tawhid serves as a framework that directs innovation to align with spiritual and ethical goals rather than mere economic or materialistic ambitions.

This understanding becomes crucial when addressing the transformative power of digital technologies and AI, which often operate within secular frameworks that prioritize efficiency and profitability. A report from the International Journal of Ethics in AI (2024) study by Lahiri Chavan (2024) highlights that current AI systems are predominantly designed without considering spiritual dimensions, AI development has primarily focused on ethical dimensions, such as fairness, bias mitigation, and cultural values. For instance, the concept of an ethical AI design system aims to incorporate cultural narratives and values into AI decision-making processes, but it does not explicitly address spiritual dimensions creating a gap that needs to be bridged by religious perspectives such as tawhid. By applying tawhid, technological advancements can be guided to benefit humanity in a balanced and sustainable way.

#### **Islamic Ethical Foundations**

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Islamic ethics emphasize the integration of values like justice, trust, and public welfare into all aspects of life, including technology. Justice (*al-'adl*) ensures that technology is used equitably and does not harm marginalized groups. Islamic principles of justice, or *al-'adl*, emphasize fairness, equality, and the protection of marginalized groups, which are crucial in the context of technology use. The Islamic ethic of justice, deeply rooted in the Qur'an and the teachings of the Prophet Muhammad, advocates for substantive fairness and access to justice, ensuring that all individuals can reach justice-providing venues (Jamal, 2022). For example, biased algorithms that perpetuate discrimination contradict this fundamental principle. Emerging technologies pose both opportunities and risks for justice. While they can promote justice, they also risk perpetuating injustice if not guided by ethical norms (Papaioannou, 2021). Study by Faverio (2023) the Pew Research Center found that nearly 70% of AI-driven hiring tools exhibited biases against minorities, showcasing the urgent need for ethical recalibration.

In addition, the principle of *al-maslahah*, which prioritizes the greater good, calls for technologies that enhance collective well-being rather than serving the interests of a few. Public welfare can be operationalized in AI by ensuring equitable access to resources and opportunities. Similarly, the concept of amanah reminds developers and policymakers of their responsibility to use technology as a trust, avoiding misuse or exploitation. Elmahjub (2023) also say, Islamic ethics offer a pluralist approach to AI, emphasizing the concept of "maslaḥa," which refers to the welfare and utility-based ethical considerations aligned with divine will. This framework allows for a balanced evaluation of AI technologies, considering both utility and duty-based interpretations.

## Ethical Islam Challenges in AI

The integration of artificial intelligence (AI) within an Islamic framework presents a range of ethical challenges that require careful consideration. These challenges span across various domains, including communication, economics, education, and law, and are closely tied to Islamic ethical principles. The primary focus lies in ensuring that AI technologies not only drive innovation but also align with core Islamic values, such as justice, privacy, and the preservation of traditional knowledge, fostering a balance between technological advancement and spiritual principles. From an Islamic perspective, safeguarding privacy aligns with the principle of *hifz al-'irdh* (protection of dignity), a core component of the objectives of Islamic law (*maqasid al-shariah*). The Maqasid al-Shari'ah, which emphasizes values like privacy and fairness, is crucial in addressing AI's ethical challenges (Mohadi & Tarshany, 2023). Said Yunos, (2024) AI technologies often involve data collection and analysis, which can lead to privacy invasions. This is particularly concerning in Islamic ethics, which values the preservation of privacy (*hifz al-nafs*) as a core principle of Maqasid al-Shari'ah. Thus, addressing these challenges requires incorporating ethical safeguards that resonate with Islamic values.

The advancement of artificial intelligence (AI) has introduced new opportunities for expanding the reach of Islamic teachings through tools like chatbots and natural language processing. These technologies enable the delivery of da'wah messages in a faster, broader, and more personalized manner to diverse audiences. However, alongside these innovations come significant ethical concerns that demand attention. One major issue is the accuracy of information presented by AI-based systems. Since AI relies on data and algorithms, there is a risk of generating content that may be inaccurate or misaligned with Islamic teachings if not closely monitored. Such misinformation could lead to misunderstandings, particularly in the sensitive context of spreading religious and moral values.

Moreover, the digital divide adds another layer of complexity to using AI in da'wah. Not all communities have adequate access to technological devices or reliable internet connectivity. This disparity risks excluding certain groups from benefiting from AI-enhanced da'wah efforts, potentially creating inequalities in the dissemination of Islamic teachings. Addressing these challenges requires not only focusing on technological innovation but also ensuring ethical oversight, content accuracy, and equitable access to these advancements for all communities (Marlina & Yaza Azahra Ulya, 2024) Integrating Tawhid into Technological Ethics By placing tawhid at the core of technological ethics, Muslims can lead the way in redefining the purpose of innovation. Instead of merely seeking efficiency, AI can be developed to uphold ethical principles that serve humanity and protect the environment. For example, AI applications in healthcare could prioritize equitable access to treatments, aligning with maqasid al-shariah, which emphasizes the preservation of life (*hifz al-nafs*). Ngugi, (2024) AI applications in healthcare can enhance equitable access to treatment, aligning with maqasid al-shariah's principle of preserving life (*hifz al-nafs*). By improving decision-making and disease diagnosis, AI can address disparities and promote better health outcomes for marginalized communities. Furthermore, Islamic ethical values can be operationalized through collaborative initiatives. A successful example is Malaysia's National AI Roadmap (2021), which integrates Islamic principles into its ethical guidelines for AI governance. This roadmap highlights how amanah and al-'adl can shape national policies, ensuring technological progress benefits all citizens.(Kareen Foong, 2024)

## **Towards a Holistic Ethical Framework**

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Developing a tawhid-based ethical framework requires interdisciplinary collaboration between theologians, ethicists, and technology professionals. This collaboration is crucial to ensure that the framework is not only comprehensive but also contextual and capable of addressing the complex ethical challenges arising from scientific and technological advancements. By combining theological insights with ethical reasoning and technological understanding, a robust framework can be created that aligns with Islamic principles while being relevant to contemporary issues. The following section discusses the importance and benefits of such interdisciplinary collaboration. Theological Insight The concept of tawhid, which emphasizes the oneness of God, forms the foundation of Islamic ethics and provides a profound perspective for understanding the interconnectedness of various aspects of life, including technology (Choudhury, 2019). *Maqasid al-shariah*, which outlines the higher objectives of Islamic law, stresses the protection of religion, life, intellect, progeny, and property. These principles are crucial in evaluating the impact of technology on human life (Amana Raquib, 2015). This approach ensures that Islamic principles are not only preserved but also adapted to address modern challenges.

The absence of religious frameworks in global AI ethics discussions highlights the need for contributions from Islamic perspectives. A report by (UNESCO, 2022) on AI ethics underscores the dominance of secular paradigms, which often overlook cultural and spiritual diversity. Integrating tawhid-based ethics into these discussions can enrich global policies, offering a more inclusive and human-centered approach.

To implement these values effectively, Islamic institutions must play a proactive role in shaping AI policies and technologies. Initiatives like the Ethical AI Initiative by the Organisation of Islamic Cooperation (OIC) demonstrate how collective efforts can promote ethical innovation. These initiatives also provide a platform for advocating policies that reflect Islamic principles on a global scale. Naeem AllahRakha (2024) The OIC's approach aligns with global efforts, such as UNESCO's AI ethics principles, which emphasize the need for international cooperation and robust governance to ensure responsible AI development.

# 2. LITERATURE REVIEW

Islamic views on technology emphasize the harmony between innovation and divine guidance. According to classical Islamic scholars, knowledge and technological progress are seen as tools for fulfilling the purpose of life: worshiping Allah and contributing to societal welfare. Islamic perspectives on technology, particularly Artificial Intelligence (AI), are multifaceted, reflecting a balance between embracing technological advancements and adhering to Islamic ethical principles. The implementation of AI in various sectors, such as healthcare and education, is viewed as an opportunity to enhance efficiency and accessibility. However, it also raises ethical concerns that need to be addressed through the lens of Islamic jurisprudence and ethics.

Study by (Yunos & Hamdan, 2024) The integration of Artificial Intelligence (AI) with Maqasid al-Shariah, which focuses on safeguarding religion, life, intellect, lineage, and wealth, is essential for ensuring its ethical use. In the healthcare sector, for example, AI has the potential to improve health outcomes and support these foundational goals. However, its implementation must be done in a way that aligns with Islamic principles to prevent any violations of these values. Authored by Mohadi (2023) Key ethical issues, such as privacy and the risk of manipulation, are significant concerns that require careful attention. Islamic ethics stress that AI must be developed and applied in a manner that upholds these values.

Summarized by Mohammed Ghaly (2024) The use of AI in the workplace should be consistent with Islamic work ethics, which regard work as inherently virtuous, prioritize professions that are permissible in Islam, and emphasize the importance of maintaining positive relationships with all involved parties Historical examples from Islamic civilization demonstrate that AI can be incorporated into various fields without violating ethical principles, as long as necessary precautions are observed. Additionally, AI's role in the workplace must be consistent with Islamic work ethics, which view work as inherently virtuous, prioritize occupations that are Islamically permissible, and emphasize fostering positive relationships with all stakeholders. Historical examples of automata in Islamic civilization illustrate that AI can be incorporated into work practices without compromising moral integrity, as long as proper precautions are observed.

Published by Rozaanah (2024) AI holds significant potential to revolutionize Islamic education by offering personalized learning experiences and improving accessibility. However, it is crucial to strike a balance between AI and traditional educational values to ensure the preservation of religious and character development. Authored by Aliff (2021) The rapid advancement of AI calls for a reassessment of its effects on Muslim communities, urging the implementation of regulations that ensure AI's benefits are in harmony with Islamic values. Discussions from the perspectives of Kalam and Sufism emphasize the possibility of creating AI at a human level, underlining the importance of maintaining an ongoing dialogue within Islamic traditions (Khalili, 2024)

This viewpoint is grounded in the concept of amanah (trust), which asserts that humans are caretakers of the Earth and, by extension, the technologies they develop. Technologies that enhance human welfare and align with ethical principles are viewed positively, while those that harm individuals or the environment are approached with caution. The Islamic Perspective on Science and Technology emphasizes that Islamic ethics and the concept of tawhid offer a strong framework for understanding the connection between religion and technology. However, despite these insights, there remains a gap in applying Islamic principles directly to modern technologies, especially in fields like AI and digital systems.

# **Towards an Integrated Framework**

The integration of Islamic values into AI ethics could create a more inclusive and comprehensive ethical framework. By combining tawhid with global ethical standards, such as fairness and accountability, we can create a system that promotes both individual rights and collective well-being. The integration of artificial intelligence (AI) in Islamic societies requires the inclusion of religious ethics in the formulation of AI policies. This approach ensures that AI technologies are in harmony with Islamic values and principles, addressing ethical issues while fostering the well-being of society. Islamic ethics, rooted in sources like the Sunnah and Maqasid al-Shariah, offer a foundation for assessing the societal impact of AI, highlighting the significance of ethical considerations in both the development and application of AI technologies.

Ethics in AI can be grounded in the Sunnah of Prophet Muhammad, focusing on principles such as legitimacy, neutrality, safety, privacy, and environmental sustainability. These guidelines help ensure that AI is used ethically, in accordance with Islamic law and its broader objectives (Al Kubaisi, 2024). AI applications, especially in fields like healthcare, should align with the principles of Maqasid al-Shariah, which emphasize the protection of life, wealth, intellect, and religion. This ensures that AI technologies contribute to achieving societal goals positively and ethically (Yunos & Hamdan, 2024)

The literature reveals a substantial gap in research that links Islamic ethics, specifically tawhid, with AI development. While many studies focus on AI ethics, there is a lack of comprehensive frameworks that integrate religious values into technological governance. By addressing this gap, scholars can contribute to the creation of AI systems that not only prioritize technological progress but also align with Islamic ethical principles. The integration of tawhid into AI development can ensure that technology serves humanity in a way that is both spiritually fulfilling and socially just. Moving forward, researchers, policymakers, and technologists must work together to develop AI systems that are ethically sound, inclusive, and grounded in moral values that benefit all of humanity.

## 3. METHODS

This paper will adopt a descriptive qualitative analysis approach to deeply explore and describe the application of Islamic ethical principles, particularly the concept of tawhid, in the development of digital technologies and artificial intelligence (AI). This method will allow the researcher to gain a comprehensive understanding of the relationship between modern technology and Islamic teachings, while offering Islam-based solutions to address ethical challenges arising in technological development. The approach used in this study is the literature method and documentation data. This method allows the researcher to analyze and explore information found in relevant literature as well as documents related to the research topic, which is the application of Islamic ethics in digital technologies and artificial intelligence (AI), with a focus on the concept of *Tawhid*.

## 4. **RESULTS**

This research has explored the intersection of Islamic ethics and AI development, with a particular focus on how the principle of tawhid can guide the ethical framework for Artificial Intelligence. Key findings highlight the importance of integrating Islamic values, such as justice (*adl*), benevolence (*ihsan*), and public good (*maslahah*), into the design and deployment of AI technologies. These principles, derived from primary Islamic texts like the Qur'an and Hadith, offer valuable insights into creating AI systems that are not only efficient but also ethically responsible. The study also identifies the significant gap in current research, where

the integration of *tawhid* and other Islamic ethical values into AI development remains underexplored. Through the application of textual analysis and interpretative methodology, this research has successfully demonstrated that Islamic ethics can provide a strong, principled foundation for addressing contemporary challenges in AI, such as algorithmic bias, privacy concerns, and social justice.

#### **Implications for Islamic-Based Technology Development**

The findings of this study have far-reaching implications for the development of Islamic-based technologies. First and foremost, they underscore the need for a paradigm shift in how AI is developed and utilized, where ethical considerations are embedded in every phase of technological design and deployment. By integrating Islamic values into the framework of AI, technology developers can create systems that prioritize not just efficiency and innovation but also moral responsibility. This approach ensures that AI technologies serve humanity in a way that is consistent with Islamic moral teachings, contributing positively to the welfare of society and promoting justice and fairness in a world that is increasingly shaped by technology. Moreover, adopting Islamic principles such as tawhid, which emphasizes the unity of all creation, can encourage a more holistic and inclusive approach to technology, fostering collaborations that transcend geographical, cultural, and religious divides.

The study also highlights the potential for AI ethics to be framed within broader Islamic values like sustainability, social equity, and moral accountability. These values can be crucial in ensuring that AI development does not merely serve the interests of a select few but benefits society as a whole, especially the marginalized and vulnerable. By aligning AI with Islamic ethics, it is possible to mitigate the risks of exacerbating inequality or injustice, ensuring that technological advancements are used in ways that promote social good and human dignity.

#### **Recommendations for Future Research**

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While this study provides foundational insights into the integration of Islamic ethics into AI, there is much more to be explored in this emerging field. Future research should aim to delve deeper into the practical applications of Islamic ethical principles in AI development. This includes developing specific ethical guidelines and frameworks that can be implemented at various stages of AI design, from data collection and algorithm development to deployment and monitoring. Research could focus on creating case studies where Islamic ethical principles have been successfully integrated into AI systems, providing real-world examples for developers and policymakers. Furthermore, cross-disciplinary studies are essential to bridge the gap between Islamic scholars, AI researchers, and technology developers. Collaborative research efforts could lead to the creation of practical tools for ensuring ethical AI, such as ethical audits, algorithmic transparency frameworks, and accountability measures that reflect Islamic moral teachings. In this respect, partnerships between Islamic institutions, universities, and tech companies could facilitate the development of Islamic-inspired AI innovations that meet both technological and ethical standards.

Another promising avenue for future research is the exploration of AI governance frameworks rooted in Islamic jurisprudence (*fiqh*), especially in relation to emerging technologies like machine learning, autonomous systems, and data ethics. Understanding how Islamic legal principles can inform governance and regulation in the context of AI will be crucial for ensuring that AI systems remain aligned with broader social values and moral obligations.

#### 5. DISCUSSION

# Integrating Tawhid in AI Design

The integration of tawhid in AI design offers a foundational shift in how algorithms are developed and deployed. Tawhid, the core Islamic principle of the oneness of God, stresses that all aspects of life and creation are interconnected and should align with divine guidance. In the context of AI, this means that the design of AI systems should be aligned not only with technical objectives but also with ethical and moral considerations. For instance, when developing AI algorithms, it is crucial to consider the broader implications of these technologies on society, humanity, and the environment. An AI system grounded in tawhid would prioritize human dignity, justice, and social welfare, ensuring that the technology serves the greater good of all, rather than just a select few. As Masudul Alam Choudhury (2022) Moral and Material Interrelations: The Islamic perspective on technology, including AI, emphasizes the integration of moral and material considerations, ensuring that technological advancements contribute to social well-being and sustainability.

One way to implement this concept is by incorporating values such as fairness, accountability, and transparency in AI algorithms, as these principles resonate with the Islamic ethical teachings of *adl* (justice) and *amanah* (trust). Moreover, AI systems that embrace tawhid would avoid bias and discrimination, promoting inclusivity and equal access to technological benefits. Written by Muhammad Ashraf Faheem (2024) issues in a more detailed way. It thoroughly analyzes the ethical aspects of AI and the developers, policymakers, and

users. This includes ensuring fairness, transparency, and accountability while addressing biases in training data to align AI technologies with societal values and promote equitable outcomes.

By embedding these values into the design phase, developers can create AI systems that adhere to Islamic moral values, ensuring that the technology aligns with the broader ethical framework of tawhid and does not deviate towards exploitation or harm. Writen by Raquib (2022) Embedding Islamic moral values into the design phase allows developers to create AI systems aligned with the *Maqasid al-Shar'iah*, ensuring that ethical considerations are integrated into technology, promoting human welfare and virtuous behavior within the societal context.

# **Developing Ethical Guidelines**

To foster the ethical development of AI, it is essential to create comprehensive guidelines that are rooted in Islamic values. These guidelines should draw from core principles of Islam, such as *adl* (justice), *ihsan* (benevolence), and *maslahah* (public good). The goal is to ensure that AI development prioritizes not just technical efficiency but also the welfare of society. AI ethics and social responsibility require collaboration among technologists, ethicists, policymakers, and society to address tensions and ensure AI serves societal interests Transparency, accountability, and fairness are essential principles that need to be translated into actionable rules for AI development. (O.C. Ferrell & Ferrell, 2024).

For example, any AI system developed should promote fairness, protect privacy, and ensure that vulnerable populations are not discriminated against. By applying Islamic ethics to the development of AI, we can create a framework where technology is not only aligned with contemporary legal standards but also reflects timeless spiritual values. According to Hermansyah (2023) AI development must adhere to ethical principles, ensuring fairness and privacy while preventing discrimination against vulnerable populations. Integrating ethical frameworks, including Islamic ethics, can align technology with legal standards and uphold essential moral values.

In practical terms, an Islamic ethical framework for AI would include specific guidelines on data privacy, algorithmic fairness, and transparency in decision-making processes. For instance, ensuring that AI decisions are made transparently and that users can understand how their data is being used is consistent with Islamic principles of honesty and transparency. Additionally, tawhid emphasizes that humans are not the ultimate authority; rather, they are stewards of God's creation. Therefore, ethical guidelines in AI should stress the responsibility of developers to use their technological creations wisely and with caution,

ensuring that AI systems contribute positively to the broader community without infringing upon individual rights or freedoms.

# **Islamic Solutions to Ethical AI Challenges**

Several ethical challenges in AI development, such as algorithmic bias, transparency issues, and the potential for exploitation, can be addressed through Islamic solutions. A major ethical dilemma in AI is the issue of bias in machine learning algorithms, which can perpetuate societal inequalities. AI systems trained on biased data can unintentionally reinforce harmful stereotypes or discrimination. Moussawi, (2024) Case studies have shown that biases codified in algorithms can result in harmful outcomes, such as racial and gender discrimination in AI applications. Islam's emphasis on justice (adl) and the intrinsic dignity of all individuals can serve as a basis for creating more equitable AI systems. By ensuring that algorithms are developed using diverse, representative datasets and that the systems are regularly audited for fairness, developers can mitigate the risk of perpetuating bias.

Moreover, Islamic ethics calls for transparency and accountability, which can be used to address concerns regarding the "black box" nature of AI. As Delivered by Krunal Manilal Gala (2024) Developing robust governance structures and industry-specific ethical guidelines can help mitigate the "black box" problem and establish accountability. In many AI systems, the decision-making process is not visible to users, leading to a lack of trust and accountability. Drawing from Islamic values, developers can create more transparent AI systems where users can access information about how decisions are made and who is responsible for them. This is in line with the principle of *amanah*, which calls for trustworthiness and honesty in all dealings. By making AI processes transparent, developers not only build trust with users but also uphold their ethical responsibility to provide clear and accurate information.

Islamic solutions to the ethical challenges of AI also extend to the issue of privacy and data protection. In Islamic law, privacy is a fundamental right, and personal information should only be used for legitimate and ethical purposes. Mohadi (2023) Maqasid Al-Shari'ah: This concept emphasizes the protection of essential values, including privacy, as a core objective of Islamic law. It advocates for ethical AI development that aligns with these values, ensuring that AI technologies do not compromise individual privacy or lead to manipulation.

This principle can guide the development of AI systems that respect user privacy and limit data collection to only what is necessary. For example, AI systems should be designed to collect anonymized data where possible and should provide users with clear, understandable terms regarding data usage. Research by Gemiharto (2024) Anonymizing data reduces the risk of privacy violations by ensuring that personal identifiers are removed, thus protecting

individuals' identities. This approach aligns with the Islamic ethical value of *ihsan*, which calls for kindness and respect in all interactions.

# Islamic Principles as a Global Model for AI Ethics

The integration of tawhid and Islamic ethical principles into AI development offers a potential global model for ethical technology. As the field of AI continues to grow, there is an increasing need for ethical frameworks that not only address technical issues but also consider the broader human and social implications. While many ethical frameworks focus on human rights or utilitarianism, an Islamic approach to AI emphasizes holistic well-being, where the technological advancement serves both the individual and the collective (Raquib et al., 2022). This broader approach can guide policymakers and developers worldwide in creating AI systems that promote justice, dignity, and respect for all people.

By adopting Islamic ethical principles, AI developers can ensure that their systems reflect a more inclusive and compassionate worldview, addressing the needs of all people, regardless of their background or status. This ethical approach, grounded in tawhid, has the potential to shape the future of AI in ways that are not only technologically advanced but also spiritually and ethically responsible. In a world increasingly shaped by technology, the adoption of ethical AI, rooted in Islamic values, could serve as a model for a more just and equitable future.

#### 6. CONCLUSION

In conclusion, this research has shown that integrating Islamic ethics, especially the core principle of tawhid, into AI development provides a pathway for creating technologies that are morally grounded, socially responsible, and aligned with the values of justice, fairness, and public good. By bridging classical Islamic ethical teachings with modern technological challenges, this study opens up new possibilities for an ethical and inclusive approach to AI design and digital technology. Moving forward, continued research and collaboration will be essential to refine these ideas, develop practical frameworks, and ensure that AI contributes positively to society, while respecting the moral imperatives outlined in Islam.

# LIMITATION

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This article provides valuable insights into the application of Islamic ethics, particularly the principle of tawhid, in the development of digital technology and artificial intelligence (AI). However, several limitations should be noted. One of the main shortcomings is the lack of empirical studies supporting the effectiveness of implementing tawhid principles in technology development. While the article is based on extensive literature review, the absence of field data or real-world case studies makes it challenging to assess the practicality of the proposed recommendations.

Moreover, the focus of this article remains largely theoretical. The integration of Islamic principles with technology tends to be discussed within a normative framework, necessitating further research to develop actionable frameworks that can be directly applied by technology developers or policymakers. The lack of technical guidelines or concrete examples of implementation in AI also hinders the translation of the proposed concepts into practical applications.

Another limitation is the dominance of Islamic literature perspectives in discussing technological ethics, with minimal interaction with the broader global ethics of technology. This limits the article's scope of influence within the international discourse on AI ethics, which requires a cross-cultural and interfaith approach.

To expand its academic contribution, future research should include real-world case studies, interdisciplinary collaboration between technology experts and Islamic scholars, and an exploration of how tawhid principles can be adopted in diverse global contexts.

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