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Research Article

Perspektif Qur'anic Perspectives on Digital Health Ethics and Artificial Intelligence

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Abstract: The digital revolution in global health presents great opportunities and challenges through the integration of artificial intelligence (AI), big data and telemedicine. However, the absence of a transcendent ethical foundation in the development of medical technology risks undermining human values and justice. This study aims to critically examine the direction of digital health development by integrating the ethical and spiritual values of the Qur'an. The method used is a critical qualitative approach based on library research, with normative analysis of verses related to health principles, information ethics, and maqāṣid al-syarī'ah. The results of the study show that in QS. Al-Isrā': 70 emphasizes human dignity as the basis for medical data protection; likewise in QS. Al-Syu'arā': 80 emphasizes that healing is divine and should not be separated from spiritual values; while in QS. Al-Baqarah: 286 provides guidance on the limits of responsibility and human capabilities in the utilization of technology. The critical discussion underlines the importance of building Qur'anic-based digital ethics that emphasize justice ('adālah), trustworthiness, and compassion (raḥmah) in designing equitable and inclusive artificial intelligence (AI) systems and remote health services. It is hoped that this study will provide recommendations for the development of Qur'anic Digital Ethics as a future normative framework for global digital health innovation.

Keywords: Perspective, Quran, Digital Ethics, Artificial Intelligence

1. Introduction

The digital revolution has marked a new chapter in the development of global healthcare. Technological innovations such as artificial intelligence (AI), big data analytics, and telemedicine have brought drastic changes in diagnosis, therapy, patient monitoring, and medical record management. According to a study by Faizi Abdillah (2024), the implementation of AI in telehealth and medical image processing has significantly improved the efficiency and accuracy of healthcare services in Indonesia. This transformation not only changes the way medical personnel work, but also opens up access to healthcare across geographical and social boundaries, as reflected in the growth of telemedicine on local platforms.

According to a WHO report (2023), more than 70% of member states have integrated digital technologies into their national healthcare systems as part of an e health strategy. This data indicates a massive global adoption of technology in the health sector. But on the other hand, this rapid progress also presents complex challenges that are multidimensional in nature.

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Among the most prominent issues is the problem of digital medical ethics, including patient data confidentiality, algorithmic bias, injustice in healthcare distribution, and the risk of dehumanization due to the dominance of automated systems. For example, a study by Mittelstadt and colleagues (2016) highlights how the use of unrepresentative data can reinforce structural inequalities in medical AI systems, while also pointing to the lack of a holistic ethical framework. In the local context, the journal MedisInfo notes that the challenges of data privacy and security in the digital health ecosystem are still not adequately addressed. They emphasize the need for clear policies related to transparency of data use, informed consent, and periodic audits to ensure compliance with privacy standards.

Meanwhile, an article in the Indonesian Journal of Medical Ethics states that the digitization of health services requires strong ethical governance to avoid disruptive doctor-patient relationships and inequitable access to services. On the other hand, the dominant digital health ethic in the West is still largely based on utilitarianism and individual freedom, which tends to ignore the spiritual and transcendent dimensions. This approach does not address the needs of religious communities in designing culturally and spiritually inclusive digital health systems.

In this context, there is an urgent need for a more holistic ethical approach based on universal human values. The Qur'an, as a divine revelation and a guide for Muslims, contains ethical treasures that are not only ritualistic or theological in nature, but also contain essential moral and social principles to be applied in the development of modern technology, including digital health services. For example, the principles of 'adālah (justice), raḥmah (compassion), amānah (responsibility), and ḥifẓ al-nafs (protection of the soul) are pillars of Qur'anic ethics that can be used as a reference in designing an inclusive and dignified digital health system. Susanto's research (2024) emphasizes that Islamic values such as trustworthiness and justice need to be integrated into technology design in order to face global challenges in the digital era. . Meanwhile, Sugiyono and Iskandar (2021) highlight the importance of integration between science and Qur'anic values in the framework of education and technology, as a moral foundation in dealing with current issues.

In the Quran QS. Al-Isrā' :70 states, "And indeed, We have glorified the children of Adam...", as a transcendental reminder that every form of medical innovation must uphold human values. Similarly, QS. Al-Syu'arā' :80 emphasizes that healing only comes from Allah: "and when I am sick, it is He who heals me." This verse reinforces the position that technology is only a tool (wasilah), not an absolute entity that can replace empathy and the spiritual dimension in the healing process

Furthermore, the integration of spiritual values in health technology is also supported by Fonua's (2025) studies, which show that Islamic value-based digital literacy helps patients build critical awareness of digital health content and services. Thus, these Qur'anic verses provide ethical direction that technological advancements should strengthen-not diminish-human values and spiritual life.

Studies on technological ethics in Islamic education also emphasize that religious components such as taʿāruf (recognition) and musyāwarah (deliberation) are fundamental elements needed to build a humane and inclusive technological system.;. This approach is in line with the needs of digital health systems, which not only prioritize functionality, but also maintain the dignity of patients and pay attention to cultural plurality.

In this way, applying Qur'anic principles in the design of digital health technologies is not just a rhetorical endeavor, but a strong normative foundation. This approach promotes balance: between technological efficiency and respect for spiritual ethical values, between innovation and social justice. This becomes relevant at the policy formulation, system design, and evaluation and implementation stages of future digital health services.

In today's digital age, the use of electronic medical records (RME) and health algorithms in various digital platforms has led to the collection of large amounts of medical data often without the express consent of patients. This creates serious moral and legal dilemmas regarding privacy and individual rights. From an Islamic perspective, such actions can be categorized as a violation of the value of amānah (trust), as patient data reflects a person's privacy and honor.

There is a statement in the Quran QS. Al Anfāl: 27 explicitly states:

"O you who believe! Do not betray Allah and the Messenger (Muhammad), and (also) do not betray the trusts entrusted to you..."

This verse provides a strong foundation that trust-including the right to maintain the confidentiality of medical data-should be maintained with full responsibility, not merely as a customary legal obligation, but also a moral and spiritual duty. Based on the findings of Nur Ismiyah and Malika (2024) in the Medika Nusantara Journal, privacy challenges in telemedicine are vulnerable due to unencrypted data transmission and the lack of explicitly mentioned consent mechanisms. This also shows that the practice of health digitization has not fully considered the value of ethical trust.

Contemporary problems in health digitization are not only technical, but also include epistemological and normative aspects. As algorithms take over the empathic relationship between doctors and patients, and data begins to be commercialized without the involvement of a strong ethical framework, there is an urgent need for transcendental value intervention. The Qur'an suggests alternative ethical solutions through divine moral principles that can keep the digital health system just, civilized and spiritual.

The urgency of this research is even more apparent because the ethical crisis in digital health has the potential to turn technology into a dehumanizing tool that harms vulnerable groups while deepening inequality of access. Without a solid value foundation, technology may turn into a tool of social exploitation and marginalization. Therefore, incorporating the principles of amānah, 'adālah, raḥmah, and ḥifẓ al-nafs into the design and policy of digital systems is not only important for Muslims, but also has universal value and bargaining power in the global ethics arena which is now dominated by rationalistic and materialistic narratives.

This research not only enriches the treasures of Islamic science in answering contemporary challenges in the field of digital health, but also presents methodological innovations through thematic interpretation approaches and ethical normative analysis. This enables the extraction of spiritual values from revelation that are contextualized into the modern practice of health technology.

Applicatively, the results of this study provide practical guidance for various parties: policy makers, medical service providers, technology developers, and academics. They are encouraged to develop policies that are not only technically efficient and safe, but also uphold spiritual values and justice, through interdisciplinary collaboration between scholars, data scientists, medical professionals and legislators. This research thus presents a critical and constructive step in the formulation of digital health ethics derived from the Qur'an, as a transformative contribution to the global discourse on humane and progressive technology.

2. Preliminaries or Related Work or Literature Review

Several previous studies have explored innovations in digital health technologies and the ethical challenges that come with them. Faizi Abdillah (2024) in Syntax Literate showed that the application of AI to telehealth and medical image processing in Indonesia has improved the efficiency of diagnosis and treatment by hundreds of percent, while expanding access to healthcare in remote areas.

In line with these findings, the Indonesian Journal of Science and Technology (Husna, 2024) found that AI can process large volumes of patient data quickly and accurately, thus supporting medical professionals in clinical decision-making. However, the study also highlighted the importance of paying attention to privacy issues, system integration, and ethical considerations before the widespread application of AI in the medical world.

Meanwhile, in the context of dentistry, Fauziah et al. (2024) - published in the Journal of Health Law and Ethics outlined that while AI has the potential to improve accuracy and efficiency of care, challenges such as data privacy and reduced human interaction remain serious concerns. They emphasize the need for ethical guidelines to maintain the integrity of the professional-patient relationship.

In line with this, a study by Primasatya (2024) in the Journal of Legal Globalization highlighted the risk of malpractice and algorithmic bias in AI-based healthcare in Indonesia. He stated that AI systems are morally neutral entities, so the ethical responsibility remains with medical personnel, developers, and regulators who must work together to build a safe and reliable ecosystem.

However, these previous studies still have limitations. Topol (2019) in Deep Medicine has explained that although AI accelerates diagnosis and personalization of therapy, the space for empathy between doctors and patients is narrowing. This exposure has not been followed by an ethical model that can bridge the technical and spiritual aspects of medical interactions.

The study by Mittelstadt et al. (2016) also shows that algorithmic bias stems from non-inclusive population representation data-a symptom of the lack of humanity in system design. However, they have not touched on the dimension of spiritual or transcendent value, which this study argues is indispensable for building a comprehensive digital health ethics system. Research by Azmi & Mohamad (2022) tried to bring Islamic values such as raḥmah, amānah, and 'adālah into information technology design. While important, their study is still normative in nature and has yet to produce a systematic and Qur'anic-based ethical model, particularly in the context of healthcare digitization.

From this series of studies, it is clear that there is a theoretical and practical void: there is no comprehensive digital health ethics framework that integrates Qur'anic values in a systematic and applicable manner. This research aims to address this need by developing a Qur'anic Digital Ethics model that is more inclusive and relevant in regulating modern health technology.

Within the framework of maqāṣid al sharī'ah, Dusuki and Abozaid (2007) emphasized that the main objectives of sharia include the protection of five basic aspects of human beings, including the soul (ḥifẓ al nafs), reason, and individual honor. Although their research focused on the integration of maqāṣid in the Islamic financial sector, this approach has become an important foundation in the development of shariah-based ethics in various fields, including digital health technology.

However, a lacuna is mentioned in previous research as there is no conceptual model that incorporates Qur'anic values systematically and thematically into a digital health ethics framework. Currently, most studies are still limited to normative or sectoral studies, and have not explored integrally how values such as raḥmah, amānah, 'adālah, and ḥifẓ al nafs can be integrated into the design of digital health systems.

To bridge this gap, this research takes an innovative step by developing an approach to the concept of Qur'anic Digital Ethics, which is designed based on thematic analysis of the Qur'an and aligned with maqāṣid principles. This approach prioritizes the holistic study of values, not only citing religious values instrumentally but placing them as the basis for the design and evaluation of modern health technology.

In its implementation, this research integrates several Islamic theories and literatures-such as classical maqāṣid studies and thematic tafsir-with technological science and digital health ethics. For example, the thematic interpretation (mawḍū'ī) approach is used to identify key verses, while maqāṣid serves as an evaluative framework to test the ethical relevance of each element of the digital system.

By combining religious values and technological instruments, this framework has the potential to provide a more inclusive and relevant model of digital ethics for pluralistic global conditions. This model provides direction on how digital health systems can fulfill the Shariah's objectives of protecting health, dignity, and equitable access for all individuals.

2.1. Maqasid al Shari'ah Theory

The maqāṣid al sharī'ah theory is a classic theory in Islamic law that emphasizes the five main objectives of Shari'ah-preserving religion (dīn), soul (nafs), intellect ('aql), offspring (nasl), and property (māl). Rus Yandi et al. (2024) emphasized that the concept of ḥifẓ al nafs is not only related to saving lives, but also includes aspects of privacy data protection, access justice, and respect for patient dignity within the framework of contemporary Islamic law. This theory provides an applicable moral foundation in building a digital health system that respects human values.

2.2. Technological Ethics and Posthumanism

Some contemporary studies, such as those discussed by Gray & Tejay (2020), encourage the application of virtue ethics in the field of information systems security-including technology ethics-by emphasizing values such as empathy, honesty, and responsibility in system design. . This approach is in line with Qur'anic principles, although it lacks a spiritual foundation. Therefore, this research enriches the framework by exploring the transcendent value of revelation as an integral moral support..

2.3. Mawḍu'i (Thematic) Tafsir and Qur'anic Epistemology

The thematic interpretation approach or tafsīr al mawḍūʿī is used to identify and analyze Qur'anic verses related to health, human dignity, justice, and trust. For example, QS. Al-Isrā':70 which emphasizes human dignity, QS. Al-Syu'arā':80 about healing from Allah, QS. Al-Baqarah:286 about the burden according to ability, and QS. Al-Anfāl:27 on trust and responsibility. This approach strengthens the understanding that revelation can be used as an epistemological basis for value-oriented technological innovation.

2.4. Social Justice Theory in Technology Access

Amartya Sen through his book Capability Approach, states that justice is not only about the distribution of resources, but also about one's ability to use and utilize these resources. This principle is particularly relevant in the context of telemedicine, where formal access is not enough without substantive access. This concept is in line with 'adālah in Islam, which demands fair and inclusive distribution of services, not just formal ones

From the above reviews, it is clear that most of the previous studies are still sectoral or normative in nature and have not yet reached the point of systematically integrating Qur'anic values within the framework of digital health ethics. Studies on maqāṣid are usually limited to Islamic finance, while ethical technology studies emphasize utilitarian or virtue ethics without a spiritual footing. This research comes to incorporate Qur'anic Digital Ethics as a holistic conceptual model, building a framework that is driven by revelation and maqāṣid values in a balanced manner in the context of modern health technology.

3. Proposed Method

This research uses an exploratory qualitative approach with thematic interpretation (tafsir mawḍuʿi) and normative-ethical analysis methods. The main focus of the research is to develop a conceptual framework of digital health ethics based on Qur'anic values. This method was chosen because it is suitable for exploring the transcendental meaning of sacred texts and relating them to contemporary phenomena, especially in the fields of health technology and artificial intelligence.

3.1 Research Approach

The approach used in this research is::

1) Thematic: Collecting Qur'anic verses that have relevance to issues of health, ethics, technology, human protection, and social responsibility
2) Normative-Ethical: Analyze the value content of the verses and relate them to contemporary ethical principles in digital technology..
3) Phenomenological-Critical: Evaluating the phenomenon of health digitization through a Qur'anic spiritual lens, with critical reflection on current global e-health practices.

3.2 Stages of the Research Method

The research process was conducted through five main stages:

1) Identification of Relevant Qur'anic Verses

The researcher collected verses related to the issue of protecting the soul (ḥifẓ al-nafs), human dignity, trust, and justice. Some of the main verses used include:

- QS. Al-Isrā' :70 - The glory of humanity
- QS. Al-Syu'arā' :80 - Healing as the power of God
- QS. Al-Baqarah :286 - Load according to ability
- QS. Al-Anfāl :27 - Trust and confidence
- QS. Al-Mā'idah :32 - Preserving human life

2) Classic and Contemporary Tafsir Studies

To understand the context and meaning of these verses, researchers refer to:

- Classical tafsir: al-Ṭabarī, al-Rāzī, Ibn Kathīr
- Contemporary interpretation: Tafsir al-Miṣbāḥ by M. Quraish Shihab The aim is to juxtapose the literal and historical meaning with the contextual and ethical meaning of today.

3) Integration with Ethical Technology Literature

he Qur'anic values are then contextualized with current literature on:

- Ethics of AI and big data (Mittelstadt, 2016; Topol, 2019)
- ontemporary Islamic ethics (Dusuki & Abozaid, 2007; Azmi & Mohamad, 2022)
- Technology design ethics (Vallor, 2016)

4) Value Synthesis and Ethical Modeling

The results of the study were then synthesized into a Qur'anic Digital Ethics framework consisting of five pillars:

- Rahmah - Empathetic and humanized system design
- Amānah - Data protection and transparency
- Adālah - Fairness in access and distribution of services

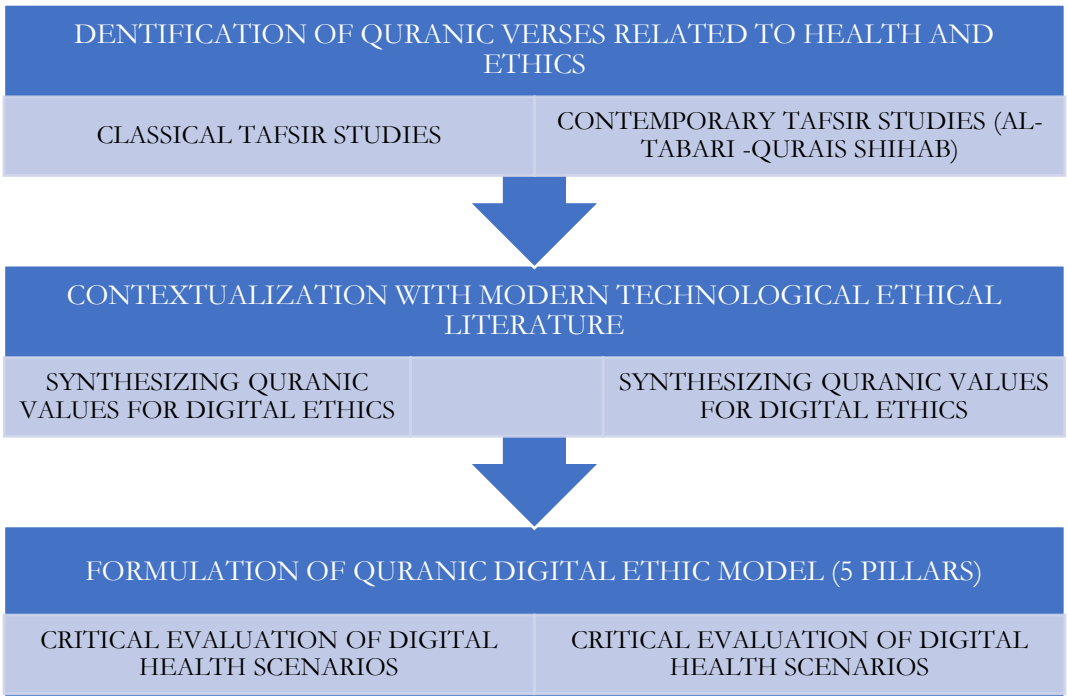
- Tawakkul & Shifā' - Integration of technology and spirituality
- Maqasid al-Sharī'ah - Protection of human life, dignity and reason

5) Critical Evaluation and Contextual Validation

The framework was evaluated through a narrative simulation (thought experiment) of various digital health service scenarios. The aim is to measure the compatibility between Qur'anic values and the ethical needs of technology-based medical systems.

3.3 Research Flow Chart

The following is a flowchart of the research method to facilitate visual understanding of the process:



3.4 Validation Technique

To maintain internal validity and scientificity of results:

1) Source triangulation is done by comparing interpretations from various schools of thought and contemporary sources.
2) A narrative audit trail was used to ensure that the interpretation of Qur'anic values was presented in a logical and transparent manner.
3) Expert confirmation was obtained through discussions and reviews from academics in the fields of interpretation, Islamic bioethics, and medical informatics.

4. Results and Discussion

Digitalization in the global healthcare system has had a significant impact on the way people understand, access and receive medical services. On the one hand, technologies such as artificial intelligence (AI), big data, and telemedicine have enabled faster disease detection, more precise treatment, and access to healthcare across geographies. The utilization of machine learning in diagnosis, algorithms in risk analysis, and robotics in surgery has created unprecedented efficiency and precision in the history of medical care..

However, on the other hand, this digital transformation also poses serious challenges in terms of ethics, spirituality and humanity. Innovations that focus too much on efficiency and algorithmic optimization tend to ignore important elements in the healing process that involve the values of trust, empathy, and human relationships. This problem is not only technical, but also touches the realm of values and paradigms-are humans still at the center of healthcare, or has it shifted to a system and data orientation?

One of the main problems identified is the dehumanization of the medical relationship, which is the lack of emotional and spiritual interaction between health workers and patients. Relationships that were once built on trust, warm communication and empathy are now being replaced by algorithmic systems that standardize diagnosis and decision-making based on statistical data. In many cases, the medical consultation process has been reduced to a dry digital question-and-answer session devoid of personal touch.

This dehumanization is more pronounced in the use of health chatbots, automated teleconsultation apps, and AI-based triage systems. While these systems increase the speed and reach of services, patients often feel like statistical objects rather than holistically valued subjects. The loss of spiritual space in the treatment process also results in a lack of inner peace and faith in the healing process, especially for patients with a strong religious background.

In this context, QS. Al-Isrā':70 which asserts that "indeed We have glorified the children of Adam..." becomes very relevant. This verse becomes a norm that emphasizes that humans should not be reduced to a mere collection of biological data, especially in a system that ignores their psychosocial and spiritual aspects. The centrality of human values helps minimize the risk of dehumanization due to the dominance of machines in health services

A Qur'anic digital health ethic encourages synergy between mind and heart, between technology and moral values. Artificial intelligence should not negate the role of feelings and empathy.. Instead, technology should be designed to assist medical professionals in understanding the patient as a whole, not to replace the role of humans entirely. This means that digital interactions should still leave room for spiritual reinforcement, religious guidance, and respect for the patient's beliefs.

In addition, this ethical crisis also has implications for the way medical decisions are made. In AI-based systems, therapeutic decisions or medical actions are often generated from statistical probabilities without considering the patient's emotional state.. This poses a risk that the patient will feel not valued as a person, but rather as a number in an intelligent system. This is where the principles of raḥmah and ḥifẓ al-nafs are important as a corrective to an overly mechanistic and reductionist approach.

Research in bioethics shows that patients who feel emotionally and spiritually valued show better recovery rates. Therefore, the digital approach to health must be holistic - not only serving physical needs, but also paying attention to mental and spiritual health. In Islam, health is not just freedom from disease, but includes peace of mind and spiritual strength to face the trials of illness..

This ethical crisis is a reminder that technology, no matter how great, must still be subject to human values. Therefore, it is necessary to formulate ethical standards that balance technological progress with the principles of Qur'anic morality. This is the background for the idea of Qur'anic Digital Ethics, a transcendental ethical framework that is not only derived from utilitarian logic or individual freedom, but also from spiritual values, social justice, and collective responsibility. This means that dehumanization in the digital health system is not just a technical shortcoming, but a paradigm crisis. The need for a more humane, empathetic and spirituality-based ethical approach is urgent. The Qur'an provides a solid foundation to answer this challenge, through values that glorify humans as caliphs, not just technological objects.

4.1 Privacy Challenges and Ethical Responsibilities (Expanded)

In the era of healthcare digitization, the protection of patients' personal data has become a crucial and complex issue. Electronic medical record systems based on cloud computing and artificial intelligence (AI) simplify the storage, processing, and exchange of medical information. However, this convenience opens a huge gap for leakage, misuse, and exploitation of sensitive data without the explicit consent of the patient as the subject of the information. This challenge is exacerbated by the lack of understanding of privacy policies and data protection mechanisms in telemedicine platforms in Indonesia.

Many modern hospitals, clinics, and healthcare apps now utilize algorithms to analyze patient health behaviors based on medical history, symptoms, or user preferences. In this process, data is collected massively, sometimes without transparency, and not everyone is aware of where and how the information is stored or used. In some cases, the data is even traded or shared with third parties such as insurance companies or advertising providers-without explicit notification.

This condition clearly contradicts the basic principle in Islam, namely amānah or responsibility for the trust given. QS. Al-Anfāl: 27 explicitly states, “O you who believe, do not betray Allah and the Messenger (Muhammad), and (do not) betray the trusts entrusted to you...” This verse serves as an ethical foundation in managing medical data, as it concerns a patient's trust in the institution or medical professional accessing their personal information.

In the Islamic view, medical data is not just a collection of numbers and biological records, but a representation of a person's dignity and privacy. Thus, a violation of data protection is tantamount to a denial of human honor. Health data management should not only consider technical security aspects such as encryption or firewalls but should also involve moral and spiritual considerations that ensure the protection of individual rights as a whole.

Unfortunately, the ethical standards used in the current global e-health system are still dominated by secular or utilitarian approaches. Aspects of spiritual responsibility have received almost no serious attention. This can be seen from the absence of ethical guidelines that consider faith values or religious commitments in health information technology decision-making. In fact, in the context of Muslim society, the issue of data privacy is not only a worldly matter, but involves accountability before God.

Furthermore, challenges also arise from the digital literacy gap among users. Many patients do not understand the consequences of granting data access permission to apps or digital platforms. This ignorance is exacerbated by non-transparent system design practices, such as lengthy and complicated terms and conditions. From a Qur'anic perspective, this represents an information gap that can lead to exploitation, and contradicts the principles of justice ('adālah) and honesty in digital muamalah.

Ethical responsibility does not only fall on the user or patient, but especially on the managers and providers of health technology systems. They are obliged to design systems that guarantee real, not pseudo, informed consent. Information must be presented in a simple, clear and understandable manner, so that patients can make informed and independent decisions. This is a concrete form of the principle of ḥurriyyah (freedom of responsibility) in Islam, which requires the absence of coercion or deceit in social interactions.

In addition, the aspect of trust is a central element in the digital health ecosystem. If patients feel that their data is not safe, or can be used for commercial purposes without control, then trust will collapse. This collapse of trust will not only have an impact on healthcare, but also on social stability, as people will tend to reject technologies that are supposed to benefit them. Therefore, it is urgent to build an ethical system that favors humanity within the framework of collective responsibility.

In this context, the Qur'anic Digital Ethics model offers a paradigm that unites worldly and ukhrawi responsibilities. Medical data is seen as a divine mandate that must be safeguarded just like keeping the secret of one's soul. Thus, any process of digitizing medical services must embed the values of amānah, sidq (honesty), and ḥifẓ al-'irḍ (guarding honor) as fundamental principles, not only in technical policies, but also in organizational culture and professional ethics.

Therefore, the challenge of privacy and ethical responsibility in digital health is not just a matter of cybersecurity, but also involves deeper moral and spiritual values. The Qur'an has provided clear guidelines for maintaining the honor and trustworthiness of information, so the integration of this transcendent principle in health policy and technology is an important step towards a civilized and humane system.

4.2 Algorithmic Discrimination and Access Inequality (Expanded)

Digital transformation in the healthcare sector has opened up opportunities to expand the scope of medical services through the use of AI, big data, and telemedicine. AI enables more accurate diagnosis, continuous health monitoring, and remote medical services. . However, behind this progress lies a paradox: technology can also widen the gap of social inequality, especially for groups with limited access to infrastructure and digital literacy.

One glaring form of inequality is algorithmic discrimination. AI systems used to make medical decisions are often trained using data from certain populations-typically those who live in urban areas, have internet access, and are economically well-off. Meanwhile, marginalized groups, such as rural communities, the elderly, people with disabilities, and the poor, are not adequately represented in these data models. Their absence in the system creates algorithmic bias that impacts the accuracy of the diagnosis and treatment recommendations given.

This algorithmic discrimination is not just a technical problem, but a form of systemic structural injustice. When algorithms fail to recognize the unique needs and contexts of vulnerable groups, service outcomes become disproportionate. For example, an AI recommendation system may not be able to recognize symptoms unique to the elderly or not accommodate remote geographies in drug delivery schedules. This shows that technology, while conceptually neutral, can be biased if not developed inclusively.

From an Islamic perspective, this inequality contradicts the principle of justice (ʾadālah), which is a basic value in a just social order. QS. Al-Baqarah: 286 affirms that "Allah does not burden anyone but according to his ability." This verse provides guidance that any system, including medical technology systems, should be designed with human capacities and limitations in mind, especially those in weak and vulnerable conditions. If a system imposes a digital burden on people without considering their readiness, then it is not only a design error, but also a violation of moral values.

Inequality of access also occurs in the form of a digital divide, which is the difference in the ability to access, understand, and utilize technology between community groups. In many areas, internet facilities are uneven, electricity is unstable, and people's digital skills are low. In this context, the use of health apps or online medical consultations becomes irrelevant, even adding to the divide as they can only be accessed by a few. As a result, the poor or those living in underdeveloped areas are increasingly excluded from digital health advancements.

In terms of social justice, this condition is ironic because the technology that is supposed to make things easier actually exacerbates exclusion. In terms of maqāṣid al-syarīʾah, the protection of the soul (ḥifẓ al-nafs) should not be conditional on the level of digital literacy or ownership of electronic devices. All individuals deserve access to proper healthcare, without discrimination based on social class, region of residence, or level of technological education. Therefore, technological justice is an important principle that must be upheld in the era of digital health..

n addition, digital service distribution systems often do not consider the cultural and social context of local communities. Many telemedicine platform designs or health apps are developed with the assumption of user homogeneity, when in reality people are very diverse in terms of language, communication culture, and comfort level with technology. In Islam, the principles of taʿāruf and musyāwarah encourage the participation of all community groups in the system design process, so as to create services that match the real needs on the ground.

This inequality not only impacts on medical services, but also on public health policy decision-making. Governments or donor agencies often use digital data as the basis for interventions, even though the data does not reflect the reality of all community groups. If the data used comes from a limited population, the decisions made are biased and unrepresentative. This leads to double marginalization: unrecorded groups become excluded from services.

To overcome this problem, we need a Qur'anic approach that emphasizes inclusivity, mercy, and 'adālah. Technology should be developed with the principle of partiality towards the weak, not merely for efficiency for established groups. System design should be based on empathy and participation, including the involvement of marginalized communities in the validation and evaluation process. This is the realization of Qur'anic Digital Ethics that restores human values in health technology architecture.

Through this, algorithmic discrimination and access inequality are not negligible side effects, but major ethical challenges that must be taken seriously. Digitalization of health should be an instrument of equity, not a new tool of exclusion. If not, then the system that is built will move further away from the essence of health services as a basic right that is fair, humane, and dignified..

4.3 The Position of Technology in Healing: A Means, Not an End (Expanded)

Amidst the rapid advancement of health technology, there is a tendency to place digital tools and systems-such as artificial intelligence (AI), medical robots, and telemonitoring-as the center of the healing process. Popular narratives in the media and scientific discourse often portray AI as the ultimate solution to health crises, even as the entity that determines one's life and death. In fact, in the Islamic view, recovery from illness is not merely the result of human intervention, but is a gift from Allah, the All-Healing.

In the Quran, Allah states QS. Al-Syu'arā':80 clearly states, "and when I am sick, it is He who heals me." This verse is not only a reminder of God's power in the healing process, but also underscores the position of technology as a means, not as an end or absolute determinant. Technology is a tool in the human endeavor, not an entity that has moral or spiritual autonomy in determining the final outcome of a therapy. Equating technology with a true healer is a form of distortion of the concept of tawḥīd and obscuring the value of tawakkul..

This phenomenon becomes increasingly problematic when people begin to place absolute trust in digital tools, ignoring the role of spirituality, prayer, and inner presence in the healing process. Doctors and patients begin to rely on AI results as the only source of truth, even though the system remains subject to data bias, algorithm errors, and limited understanding of the patient's psychological and spiritual context. Under these conditions, technology has the potential to exceed its functional limits, and become a new authority that is not aligned with divine values.

From the perspective of Qur'anic ethics, the healing process must be understood holistically. Healing is not just about symptom elimination or organ stabilization, but also involves inner peace, strength of faith, and a sense of hope in Allah. Thus, the presence of technology should strengthen this spiritual dimension, not replace it. Technology can be a tool to speed up diagnosis or improve the quality of care, but remains within the value corridor that healing is God's prerogative.

The proportional placement of technology in the health system requires a balance between ikhtiar and tawakkul. In Islam, humans are required to make every effort in seeking treatment, but the final result is still returned to Allah. This balance is often lost in the ecosystem of modern medical services, where therapeutic success is solely claimed as a technological achievement, not as part of divine wisdom and compassion.

In addition, the tendency to deify health technology can have negative psychological and theological impacts. Patients who do not experience healing despite having undergone cutting-edge technology-based therapies will feel like failures or neglected by the system. In the Qur'anic view, sickness and recovery are part of the test and grace, which is not always directly proportional to the sophistication of the tools. Healing can come from peace of mind, social support, and closeness to God-factors that are often not measurable in algorithmic systems.

To overcome this deviation, it is necessary to develop a new narrative in digital health systems that places technology as a servant of values, not a master of decisions. In the Qur'anic Digital Ethics framework, technology is positioned as a facilitator of humanity and spirituality, not as a substitute for faith. For example, health applications can be accompanied by spiritual strengthening features, religious consultation rooms, or education on healing ethics that balance medical efforts and spiritual awareness.

This thinking also criticizes the health care model that is too mechanistic, which assesses patients solely from biological or statistical parameters. Islam emphasizes ḥifẓ al-nafs not only as the preservation of physical life, but also the preservation of the integrity of the soul and human values. A true healing system, then, is one that respects the inner voice, individual beliefs, and spiritual processes that accompany medical endeavors.

The realization that technology is only a means is also important in the formulation of public health policy. Governments and service providers need to be careful in shaping regulations that overemphasize investment in sophisticated tools without balancing it with spiritual education, strengthening the doctor-patient relationship, and cultural approaches. This integration will form a health system that is fair, balanced and in line with the Qur'anic teachings that place humans as noble beings who are directly connected to their Creator.

Through the above steps and paths, this research emphasizes that technology in the world of health is not the enemy, but also not the master. It is a servant that must be subject to noble ethical values and directions. Placing technology in its proper portion is an important step to avoid reducing the meaning of healing to mere clinical action, and restoring it as an intact process between human effort and divine will.

4.4 Ethical Implications of Digital Health System Design

Based on the study of Qur'anic verses and observation of the phenomenon of global health digitization, it is clear that medical technology cannot be separated from the dimensions of ethics and spirituality. A strong normative framework is needed to deal with the ethical challenges in the design and implementation of digital health systems. In response, this study introduces five key principles in Qur'anic Digital Ethics as the foundation for a just, humane and dignified health technology.

1) Raḥmah (Compassion)

Compassion is an important foundation in medical interactions, as widely emphasized in Islamic teachings. In the context of technology design, raḥmah directs systems to be developed with an empathy-oriented approach. Digital health app interfaces, for example, should be created with the patient's comfort and peace of mind in mind, not just speed or efficiency. Systems that are too technocratic risk losing the emotional nuances that healing requires. The inclusion of features such as warm communication support, local language options, and non-intimidating visual design can reflect the value of raḥmah in the digital world.

2) Amānah (Responsibility and Trust)

The ethic of amānah is a key pillar in digital data management, especially in the context of highly sensitive medical information. Digital health systems must maintain the confidentiality, integrity and security of patient data, and not use it for purposes that violate public trust. Data collection and processing must be done transparently, with a mechanism for truly informed consent. Violation of this principle is not just a technical issue, but a form of moral betrayal that contradicts the message of QS. Al-Anfāl: 27. Thus, system developers and medical personnel need to understand that every patient's data is a trust that will be accounted for, not only professionally, but also spiritually..

3) 'Adālah (Justice and Inclusiveness)

The principle of 'adālah demands that all health technology designs ensure fair access for all. No one should be victimized or excluded due to geographical, economic, or digital literacy limitations. Digital innovation should serve as a bridge that connects marginalized groups with health facilities, rather than widening the gap. Therefore, the system should be designed with the diversity of users in mind, from service affordability to adaptation to local community needs. The implementation of digital justice also includes the elimination of algorithmic bias and increased data representation from groups that have been overlooked.

4) Tawakkul and Shifā' (Spirituality in the Healing Process)

The spiritual dimension in Islam cannot be separated from the practice of healing. The principles of tawakkul (submission to God) and shifā' (healing) place God as the ultimate source of any healing process. Therefore, health technology should not take away or replace this role. In practice, digital systems can incorporate features that support the patient's spiritual well-being, such as worship reminders, spiritual educational content, or religious services that match the patient's beliefs. This approach strengthens the integration between medical and spiritual aspects, and forms a complete service ecosystem between ikhtiar and tawakkul.

5) Maqāṣid al-Sharī'ah (Supreme Objectives of Islamic Law)

Every innovation in the digital health system should be evaluated within the framework of maqāṣid al-syarī'ah, which are the basic principles of Islam that aim to protect the five main aspects of human life: the soul (ḥifẓ al-nafs), intellect (ḥifẓ al-'aql), property (ḥifẓ al-māl), religion (ḥifẓ al-dīn), and honor (ḥifẓ al-'irḍ). Technology that is inconsistent with or even harmful to any of these five maqāṣid needs to be reviewed and rejected. For example, if an AI-based system ignores data security and has the potential to dehumanize patients, then the system contradicts the maqāṣid and should be improved or abandoned.

The implementation of these five principles is not only relevant in Muslim countries, but also has the potential to enrich the global framework for developing ethically aware technologies. The Qur'anic Digital Ethics framework serves a transformative function by bringing together technological innovation and spiritual values, strengthening the human dimension in a digital age that often emphasizes instrumentalist rationality..

By incorporating the principles of raḥmah, amānah, 'adālah, tawakkul, and maqāṣid, the future health technology system is expected to not only be oriented towards efficiency and profitability, but also become a medium of service that reflects noble human values. This ethical model is an important contribution in developing a more equitable, inclusive, and dignified digital health architecture..

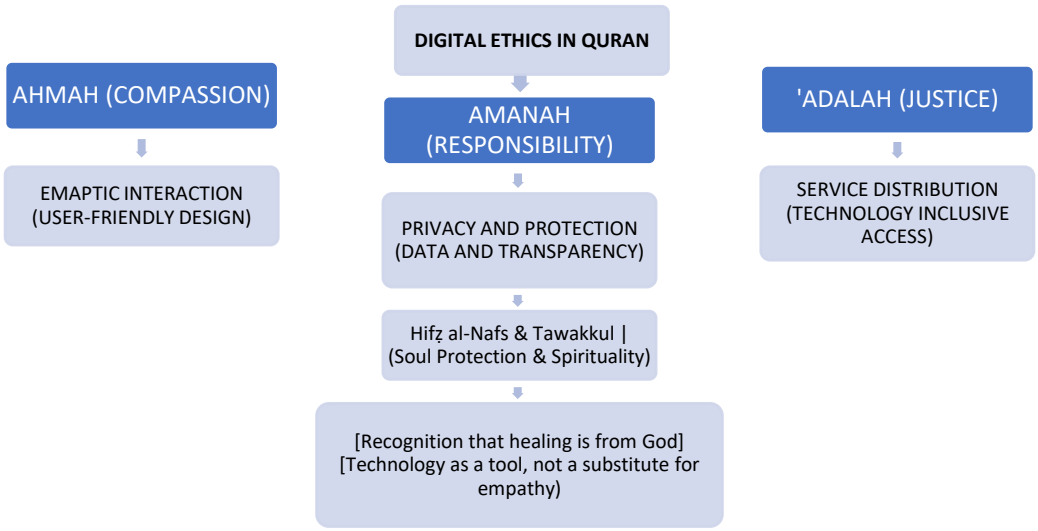
4.5 Conceptual Model: Qur'anic Digital Ethics

Based on the above findings, this study developed a conceptual model called the Qur'anic Digital Ethics Model, which is designed as a transcendental ethical framework in health digitalization. This model is not only normative, but also applicable, which can be used by policy makers, technology developers, medical personnel, and educational institutions in designing digital healthcare systems and policies.

It combines the principles of thematic interpretation and maqāṣid al-sharī'ah, and takes into account the social context and contemporary challenges in technology ethics. In this model, technology is not erased or rejected, but rather directed to remain grounded in spiritual and human values.

The following visual diagram illustrates the Qur'anic Digital Ethics Model, an integrative ethical framework for Qur'an-based digital health systems:

Conceptual Diagram: Qur'anic Digital Ethics



The model above shows that the ideal digital health system needs to incorporate: Rahmah (Compassion): ensuring that service interfaces and processes remain humanized. Then Amānah (Responsibility): ensuring patient data is not misused. Then 'Adālah (Justice): avoiding discrimination and creating a fair distribution of services. And then Hifz al-Nafs and Tawakkul: placing technology as a means, not an end; and maintaining spiritual value in the healing process...

5. Conclusions

The digital transformation of global health, while offering great advances in diagnosis, treatment, and service efficiency, has ethical and spiritual repercussions that cannot be ignored. The trend of digital health systems oriented towards technocracy, algorithmic efficiency, and data profit has created an ethical crisis, ranging from patient dehumanization, access inequality, to data privacy violations. Through a thematic interpretation approach and Qur'anic normative analysis, this study finds that the noble values contained in the Qur'an-such as raḥmah, 'adālah, amānah, ḥifẓ al-nafs, and tawakkul-offer transcendental ethical principles that are very relevant to be used as a normative framework in responding to the challenges of health digitalization. The Qur'anic Digital Ethics model formulated in this research is a conceptual contribution that integrates revelation and reality, spiritual values and medical innovation. This model is not intended to replace the existing system, but as a critical correction to the tendency of dehumanization and secularization in the current digital health system.

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