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Digital Ethics Based on Islamic Education and Thought: An Approach to Technological Innovation in the Development of Digital Society

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Abstract

This study aims to develop a framework of digital ethics based on Islamic education and thought as a conceptual approach to addressing the increasingly complex challenges of digital society development. The main focus of this research is to integrate Islamic ethical values with the dynamics of digital technological innovation in order to foster responsible, ethical, and sustainable digital behavior. The study employs a qualitative method using a library research approach. Data were analyzed through content analysis of primary sources, namely the Qur'an and Hadith, as well as secondary sources consisting of recent scholarly literature in digital ethics, Islamic education, and the sociology of technology. The findings indicate that Islamic ethical principles such as trustworthiness (amanah), proper conduct (adab), honesty, and responsibility can serve as a normative foundation for building digital ethics in the digital era. The integration of these values provides moral guidance in the use of technology, particularly in addressing issues such as misinformation, cyberbullying, data privacy, and unethical digital behavior. The novelty of this study lies in the development of a conceptual model of digital ethics that integrates the epistemology of Islamic education with modern technological innovation principles. This model is not only normative-theological but also practical and applicable in the context of digital society development, offering a new approach to digital ethics studies grounded in Islamic values while remaining responsive to contemporary technological advancements.
Keywords: AI Ethics, Maqāṣid al-Sharīʿah, Trusteeship (I'timāni), Digital Society, Human Development, Islamic Religious Education.

Abstrak

Penelitian ini bertujuan untuk mengembangkan kerangka etika digital berbasis pendidikan Islam dan pemikiran Islam sebagai pendekatan konseptual dalam menghadapi tantangan pembangunan masyarakat digital yang semakin kompleks. Fokus utama penelitian ini adalah mengintegrasikan nilai-nilai etika Islam dengan dinamika

inovasi teknologi digital guna membentuk perilaku digital yang bertanggung jawab, beretika, dan berkelanjutan. Penelitian ini menggunakan metode kualitatif dengan pendekatan studi kepustakaan (library research). Data dianalisis melalui analisis isi (content analysis) terhadap sumber primer berupa Al-Qur'an dan Hadis, serta sumber sekunder yang terdiri atas literatur ilmiah mutakhir mengenai etika digital, pendidikan Islam, dan sosiologi teknologi. Hasil penelitian menunjukkan bahwa prinsip-prinsip etika Islam seperti amanah (dapat dipercaya), adab (etika dan tata krama), kejujuran, dan tanggung jawab dapat menjadi landasan normatif dalam membangun etika digital di era digital. Integrasi nilai-nilai tersebut memberikan pedoman moral dalam pemanfaatan teknologi, khususnya dalam menghadapi persoalan seperti misinformasi, perundungan siber (cyberbullying), privasi data, dan perilaku digital yang tidak etis. Kebaruan penelitian ini terletak pada pengembangan model konseptual etika digital yang mengintegrasikan epistemologi pendidikan Islam dengan prinsip-prinsip inovasi teknologi modern. Model ini tidak hanya bersifat normatif-teologis, tetapi juga praktis dan aplikatif dalam konteks pembangunan masyarakat digital, sehingga menawarkan pendekatan baru dalam kajian etika digital yang berlandaskan nilai-nilai Islam sekaligus tetap responsif terhadap perkembangan teknologi kontemporer.
Kata Kunci: Etika Kecerdasan Buatan, Maqāṣid al-Sharī'ah, Kewajiban Kepercayaan (I'timāni), Masyarakat Digital, Pembangunan Manusia, Pendidikan Agama Islam.

A. Introduction

The development of Artificial Intelligence (AI) has driven significant transformation across various aspects of human life, including healthcare, the economy, education and social governance. Floridi refers to this phenomenon as the 'fourth revolution', characterized by the growing role of technology in shaping patterns of human interaction, ways of working and decision-making processes[1]. In this context, technology can no longer be assumed to be a neutral entity, but rather as an artefact imbued with values, as the design choices it embodies have significant moral implications for society [2].

However, behind this rapid progress lie complex and pressing ethical challenges. Key issues such as algorithmic bias that reinforces social discrimination, privacy breaches resulting from mass data collection, and a lack of clarity regarding accountability in autonomous systems have threatened social justice and public trust in technology. The phenomenon of surveillance capitalism further highlights the trend towards the commodification of human data, which implies a reduction of human dignity to that of a mere object of the digital economy. This situation demonstrates

[1] Zainal Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," *KARSA Journal of Social and Islamic Culture* 33, no. 1 (2025): 107, https://doi.org/10.19105/karsa.v33i1.19617.

[2] Sina Fazelpour and David Danks, "Algorithmic Bias: Senses, Sources, Solutions," *Philosophy Compass* 16, no. 8 (2021): e12760, https://doi.org/10.1111/phc3.12760.

that technological progress does not always go hand in hand with the strengthening of ethical values[3].

Various global ethical frameworks have been developed in response to these challenges; these are generally rooted in Western paradigms such as utilitarianism—which emphasises benefits for the majority—and deontology—which focuses on universal moral duties. However, these Western approaches have not yet fully accommodated the spiritual dimension and the existential purpose of human beings [4]. Current regulations in Indonesia also tend to function as a 'technocratic fence' that reacts to the impacts of technology, but do not serve as an 'ethical compass' that provides a profound philosophical direction regarding the ultimate purpose of innovation itself [5].

From an Islamic scholarly perspective, the response to technological developments to date has largely been dominated by a casuistic fiqh approach through fatwas. Whilst this approach is important, it often emerges only after a technology has become widely adopted, and is therefore less capable of providing a proactive ethical framework [6]. In fact, the concept of Maqasid al-Shari'ah offers a comprehensive philosophical foundation through the protection of the five fundamental aspects of human life (al-ḍaruriyyat al-khamsah), namely religion, life, intellect, lineage and property. This framework has the potential to be developed as a normative basis for designing a digital ethics framework oriented towards the public good[7].

Furthermore, within the context of Islamic Religious Education (PAI) and the broader landscape of Islamic communication, digital transformation presents not only technical challenges but also profound questions regarding the formation of values, moral character, and religious consciousness. Consequently, there is a pressing need to reconstruct digital ethics in a manner that is not only normatively grounded but also socially applicable, particularly in fostering what may be termed "Digital Adab" as the ethical foundation of a virtuous digital society.

Nevertheless, studies that systematically integrate Maqāṣid al-Sharī'ah with contemporary technological ethics within a coherent and operational framework remain relatively limited. In addition, the concept of trusteeship (I'timānī), inspired by

[3] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," 106.

[4] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," 108.

[5] Alfan Rifai and Andri Nirwana An, *An Ethical Framework for AI in Islamic Education: Synthesizing Maqashid al-Sharia and National Legal Regulations in Indonesia*, 2025.

[6] Fatima Ali et al., "Islamic Ethics and AI: An Evaluation of Existing Approaches to AI Using Trusteeship Ethics," *Philosophy & Technology* 38, no. 3 (2025): 120, https://doi.org/10.1007/s13347-025-00922-4.

[7] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," 108.

the thought of Taha Abdurrahman, has not been extensively explored as a foundational ethical paradigm for digital technology development. This article addresses this gap by integrating the Maqāṣid framework with the I'timānī approach and developing it into a conceptual model based on three interrelated dimensions: the ethical subject (mu'taman), the integration of niyyah within an ethics-by-design framework, and the incorporation of Maqāṣid as a systemic ethical safeguard.

Accordingly, this article proposes a proactive and integrative framework of digital ethics that positions humans as trustees (mu'taman) responsible for directing technological development toward the realization of justice, dignity, and collective well-being. By bridging Islamic ethical philosophy with contemporary technological discourse, this study contributes to the development of a value-based paradigm for digital society one that not only informs technological design but also guides educational practices, digital dakwah, and broader socio-cultural transformation in the age of AI.

B. LITERATURE REVIEW

1. Digital Ethics: Landskap Etika dalam Ranah Digital

Etika secara luas didefinisikan sebagai disiplin ilmu yang mempelajari prinsip-prinsip moralitas dan tindakan manusia mengenai apa yang dianggap benar dan salah. Dalam konteks teknologi, Digital Ethics (Etika Digital) muncul sebagai cabang etika terapan yang mempelajari fondasi masyarakat digital serta prinsip dan praktik moral di tengah proses digitalisasi. Wacana etika digital global saat ini didominasi oleh kerangka kerja sekuler-normatif seperti Utilitarianisme, yang menitikberatkan pada maksimalisasi manfaat agregat bagi mayoritas, dan Deontologi, yang berfokus pada kewajiban moral universal serta hak-hak individu [8].

Meskipun kerangka kerja ini memberikan panduan prosedural yang penting dalam aspek transparansi, keadilan, dan akuntabilitas, terdapat kritik bahwa paradigma Barat sering kali mengabaikan dimensi spiritual dan metafisik yang krusial bagi integritas etis masyarakat religius. Sebagai respons, para sarjana Muslim mengembangkan pendekatan berbasis Maqāṣid al-Sharī'ah, yang mengorientasikan pengembangan teknologi untuk melindungi lima kebutuhan dasar manusia: agama (ḥifẓ al-dīn), jiwa (ḥifẓ al-nafs), akal (ḥifẓ al-ʿaql), keturunan (ḥifẓ al-nasl), dan harta (ḥifẓ al-māl).

2. Technological Innovation: Dari Disrupsi menuju Inovasi Bertanggung Jawab

[8] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective."

Inovasi teknologi, khususnya yang dipicu oleh Revolusi Industri 4.0 (IR 4.0), telah mengakselerasi transformasi di berbagai sektor melalui kecerdasan buatan (AI), Internet of Things (IoT), dan big data. Inovasi ini tidak lagi dipandang sebagai alat netral, melainkan sebagai artefak yang sarat nilai (value-laden) di mana pilihan desain memiliki implikasi moral yang signifikan terhadap keadilan dan martabat manusia. Pertumbuhan pesat AI membawa tantangan etis yang kompleks, mulai dari bias algoritmik yang dapat mereproduksi ketidakadilan sosial hingga risiko demanusiawi dalam sistem otonom.

Untuk memitigasi risiko tersebut, konsep Responsible Innovation (RI) dan Ethics-by-Design menjadi sangat relevan. Kerangka kerja ini menuntut agar pertimbangan etis diintegrasikan sejak tahap awal desain sistem teknologi, bukan sekadar respons reaktif setelah kegagalan terjadi [9].

3. Digital Society: Dinamika Masyarakat dalam Ekosistem Digital

Perkembangan teknologi digital telah melahirkan Digital Society (Masyarakat Digital), sebuah tatanan sosial di mana interaksi, produksi pengetahuan, dan pengambilan keputusan dimediasi oleh infrastruktur teknologi informasi. Masyarakat modern kini hidup dalam kondisi "onlife", di mana batas antara dunia fisik dan digital menjadi kabur dalam sebuah ekosistem yang disebut infosphere. Namun, masyarakat digital menghadapi ancaman serius dari fenomena surveillance capitalism (kapitalisme pengawasan), di mana data pribadi manusia dikomodifikasi tanpa persetujuan yang transparan, yang pada gilirannya mengikis otonomi dan martabat individu (karāmah)[10].

Membangun masyarakat digital yang bermartabat memerlukan penguatan "Digital Adab" sebagai modal sosial komunitas digital yang berbudi luhur. Etika digital dalam masyarakat tidak boleh hanya berfungsi sebagai "pagar teknokratis" yang mengatur kepatuhan hukum, melainkan harus menjadi "kompas etis" yang mengarahkan inovasi untuk melayani tantangan kemasyarakatan yang besar. Upaya ini melibatkan perlindungan terhadap integritas kognitif masyarakat dari manipulasi informasi (ḥifẓ al-ʿaql) serta pelestarian struktur keluarga dan sosial di era digital (ḥifẓ al-nasl). Dengan menempatkan manusia sebagai wali atas teknologi, masyarakat digital dapat bertransformasi menjadi ruang partisipasi politik dan sosial yang adil dan tercerahkan

C. Method

[9] Mona Ashok et al., "Ethical Framework for Artificial Intelligence and Digital Technologies," *International Journal of Information Management* 62 (February 2022): 102433, https://doi.org/10.1016/j.ijinfomgt.2021.102433.

[10] Muhammad Safwan Harun et al., "The Concept of Al-Thawābit and Al-Mutaghayyirāt in Technological Innovation According to Maqāṣid al-Sharīʿah," *Millah: Journal of Religious Studies*, August 30, 2025, 573–610, https://doi.org/10.20885/millah.vol24.iss2.art1.

This research employs a qualitative approach with a normative-philosophical paradigm that focuses on constructing a digital ethics framework based on Islamic values. This approach was chosen because the research does not aim to test empirical hypotheses, but rather to develop a conceptual framework through a critical analysis of ethical issues in digital technology and a synthesis of Islamic thought and contemporary philosophy of technology.

This research is a library research study that places literature as the primary source in building arguments. The data sources in this study are literature on technology ethics and artificial intelligence (AI ethics) that discusses the issues of algorithmic bias, privacy, and accountability, as well as Islamic literature related to the Maqasid al-Shari'ah and the Trusteeship (I'timani) concept developed by Taha Abdurrahman. The literature search was conducted systematically through scientific databases such as Google Scholar, indexed journals, and relevant and up-to-date academic books.

The data analysis technique was carried out through three main stages. First, conceptual analysis to identify and clarify key concepts in digital ethics, such as justice, privacy, and accountability, as well as normative concepts in Maqasid al-Shari'ah. Second, thematic synthesis aimed to systematically integrate the principles of al-ḍaruriyyat al-khamsah with the problems of digital ethics, thus producing a coherent normative framework. Third, hermeneutic-contextual analysis was used to interpret the values in Islamic texts to make them relevant to the context of digital technology development.

D. Result and Discussion

1. Ethical Issues in Digital Technology

The rapid development of digital technology, particularly Artificial Intelligence (AI), not only brings innovation but also gives rise to ethical issues that are structural, systemic and multidimensional. These issues can no longer be viewed as 'side issues', but rather as a normative crisis that touches upon the relationship between humans, technology and values. In this context, technology is no longer neutral, but is value-laden, shaped by its design, data, and the underlying interests [11].

From an academic perspective, ethical issues in digital technology can be categorized into three main crises: a crisis of justice, a crisis of privacy, and a crisis of accountability. These three crises highlight a gap between the exponential

[11] Christian Fuchs, *Digital Ethics: Media, Communication and Society Volume Five*, 1st ed. (Routledge, 2022), https://doi.org/10.4324/9781003279488.

development of technology and the readiness of the accompanying ethical and regulatory frameworks.

a. The Crisis of Justice: Algorithmic Bias as a Reproduction of Social Inequality

One of the most fundamental issues in AI ethics is the emergence of algorithmic bias, which has the potential to reproduce and even reinforce social injustice. Despite the extraordinary value offered by AI and analytics, their 'black-box' algorithms can pose ethical risks at various levels within organisations and society. The primary ethical concern is that AI algorithms, which promise to improve the accuracy and effectiveness of organisational decision-making, tend to replicate and reinforce existing social biases in society [12]. Consequently, algorithmic processes used to automate or assist in decision-making regarding people can produce discriminatory outcomes that violate norms of justice and equality and adversely affect specific individuals or communities in the workplace or society. This phenomenon is referred to as algorithmic bias and occurs when the output of an algorithm favours or disadvantages certain individuals or groups more than others without a justifiable reason for such unequal outcomes [13].

This phenomenon is often a legacy of human bias embedded in the training data, a concept known as 'garbage in, garbage out', which underscores the fact that the ethical quality of a system is largely determined by the quality of the data and the underlying assumptions [14].

This issue extends beyond technical considerations to become a matter of distributive ethics, where certain groups are systematically disadvantaged by automated decisions. In practice, algorithmic bias is evident in recruitment systems that tend to discriminate against women; for instance, when Amazon attempted to select candidates for recruitment using AI in 2014, it was found that their model tended to favour male applicants over female applicants with similar qualifications.

Furthermore, predictive justice systems that treat certain racial groups unfairly, various reported incidents of bias within AI-based systems, and the unfair outcomes they can produce, have shown us that AI models are neither neutral nor objective,

[12] Jessica Morley et al., "Ethics as a Service: A Pragmatic Operationalisation of AI Ethics," *Minds and Machines* 31, no. 2 (2021): 239–56, https://doi.org/10.1007/s11023-021-09563-w.

[13] Nima Kordzadeh and Maryam Ghasemaghaei, "Algorithmic Bias: Review, Synthesis, and Future Research Directions," *European Journal of Information Systems* 31, no. 3 (2022): 388–409, https://doi.org/10.1080/0960085X.2021.1927212.

[14] Gabbrielle M. Johnson, "Algorithmic Bias: On the Implicit Biases of Social Technology," *Synthese* 198, no. 10 (2021): 9941–61, https://doi.org/10.1007/s11229-020-02696-y.

and cannot be considered inherently fair, as they merely reflect the views of those who build them and the data fed into them. For example, COMPAS, an AI risk assessment model used in various US states to predict the probability of a defendant reoffending, was analysed by researchers and found to be biased against the Black population, as many Black people were labelled as high-risk offenders compared to lighter-skinned individuals with similar or even worse profiles[15].

This issue of bias becomes even more concerning when it extends to the education sector (Artificial Intelligence in Education/AIED). Predictive grading systems or university admissions selection processes are often subject to socio-economic bias, as seen in the controversial case of Ofqual's use of algorithms in the UK, which was deemed unfair because it disadvantaged students from schools in disadvantaged areas[16].

In the context of Islamic education, algorithmic bias also touches on aspects of identity and language. Arabic language learning algorithms on digital platforms, for example, have been found to tend to overlook diverse local dialects, which indirectly marginalises the cultural identity of certain Muslim communities[17]. Furthermore, research indicates the presence of anti-Muslim bias in large language models (LLMs) such as GPT-3, which in some cases associate the term 'Muslim' with violence or terrorism [18]. This is extremely dangerous when used in automated evaluation or selection systems, as it can lead to systemic discrimination against certain religious groups. Unless underpinned by a robust ethical framework, AI technology in education—rather than serving as a tool for the democratization of knowledge—risks becoming an instrument of 'cultural imperialism' and unfair access for groups that are already marginalized

b. The Privacy Crisis: The Commodification of Data and the Erosion of Human Dignity

The second issue lies in the privacy crisis, characterised by the massive collection, processing and commercialisation of personal data within the digital

[15] Amana Raquib et al., "Islamic Virtue-Based Ethics for Artificial Intelligence," *Discover Artificial Intelligence* 2, no. 1 (2022): 11, https://doi.org/10.1007/s44163-022-00028-2.

[16] Daniel Schiff, "Education for AI, Not AI for Education: The Role of Education and Ethics in National AI Policy Strategies," *International Journal of Artificial Intelligence in Education* 32, no. 3 (2022): 527–63, https://doi.org/10.1007/s40593-021-00270-2.

[17] Ma'rifatun Nikmah, *God-Conscious Ai: Maqasid Al-Shari'ah In Algorithmic Design*, 02, no. 01 (2025).

[18] Rifai and An, *An Ethical Framework for AI in Islamic Education: Synthesizing Maqashid al-Sharia and National Legal Regulations in Indonesia*.

ecosystem. Within the framework of digital capitalism, data has become a high-value economic commodity, thereby driving the systematic exploitation of user information. This situation has given rise to what is known as surveillance capitalism, an economic model based on the extraction and monetisation of human behavioural data [19].

From an ethical perspective, this crisis is not only about breaches of privacy, but also touches upon the dimension of human dignity. Individuals are no longer regarded as autonomous subjects, but rather as objects of data that can be predicted, manipulated and controlled [20].

The risks involved include the commercialisation of data without adequate consent—namely, user data being monetised without transparent consent or fair compensation—and harmful data breaches, such as customer data leaks on banking and fintech platforms, resulting in material losses and significant reputational damage [21], as well as the loss of anonymity in public spaces due to the widespread use of facial recognition technology by security authorities employing AI-based surveillance technologies such as 'device/facial fingerprinting', which is sometimes disclosed in 'privacy policies'. Thus, the issue of privacy constitutes a reduction of human existence to mere data entities (the datafication of human life).

c. The Accountability Crisis: The Blurring of Responsibility in Autonomous Systems

The third issue is the accountability crisis arising from the complexity and opaque nature of modern AI systems. Many algorithms, particularly those based on machine learning and deep learning, operate as black boxes that are difficult to explain, even by their own developers. This raises an ethical dilemma when such systems produce harmful decisions, as it is unclear who should be held accountable[22].

In the literature on technology ethics, this situation is known as the 'problem of many hands', namely a situation in which responsibility is spread across various actors—ranging from developers, data providers and companies to end users—without any single party explicitly bearing the moral and legal consequences [23]. This phenomenon is evident in cases of fatal accidents involving autonomous vehicles (such as the 2018 Uber crash), creating a legal and ethical vacuum due to the absence of any

[19] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," 107.

[20] Keng Siau and Weiyu Wang, "Artificial Intelligence (AI) Ethics: Ethics of AI and Ethical AI," *Journal of Database Management* 31, no. 2 (2020): 77, https://doi.org/10.4018/JDM.2020040105.

[21] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," 117–20.

[22] Abeba Birhane, "Algorithmic Injustice: A Relational Ethics Approach," *Patterns* 2, no. 2 (2021): 100205, https://doi.org/10.1016/j.patter.2021.100205.

[23] Siau and Wang, "Artificial Intelligence (AI) Ethics," 79–81.

party that clearly bears legal responsibility[24], the use of AI in public administrative decision-making; for example, many AI systems determine students' learning pathways—from the material studied and recommended teachers to predictions of academic performance—without any mechanism for 'algorithmic discretion' that is accessible to teachers or parents[25], to the practice of 'agency laundering', whereby organisations hide behind algorithmic decisions to avoid moral responsibility[26].

This crisis of accountability demonstrates that technological advancements have outpaced the capacity of conventional ethical and legal systems to establish accountability. Without a robust normative framework, technology risks creating a 'moral vacuum'—a space where actions have significant human consequences but lack an agent who can be held ethically accountable.

2. The Construction of Digital Ethics Based on Maqasid al-Shari'ah

Maqāṣid al-Shari'ah, which literally means 'the objectives of Shari'ah', is a philosophical framework within Islamic law that focuses on the protection of fundamental human values [27]. This concept was first systematically formulated by Imam al-Ghazali and subsequently developed in depth by scholars such as Ash-Shatibi and contemporary thinkers such as Jasser Auda[28]. The primary principle of Maqasid al-Shari'ah is to promote the common good (jalb al-maslahah) and prevent harm (dar' al-mafsadah) for humanity, in both the temporal and the spiritual realms.

Traditionally, Islamic scholars have agreed upon five fundamental elements that must be protected in order to uphold the order of human life, known as al-daruriyyat al-khamsah. These five elements include:

1. Protection of Religion (ḥifẓ al-din): Safeguarding the integrity of faith and spiritual values.
2. Protection of Life (ḥifẓ al-nafs): Ensuring physical safety and human dignity.
3. Protection of Reason (ḥifẓ al-ʿaql): Preserving critical thinking and cognitive integrity.
4. Protection of Progeny (ḥifẓ al-nasl): Safeguarding family honour and the continuity of generations.

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[24] Abdulrahman Surur dan Ashimi Saoban, *Governing The Algorithm: AI Ethical Concerns, Remedies, And The Maqāṣid Sharī'ah Framework*, t.t.

[25] Rifai and An, *An Ethical Framework for AI in Islamic Education: Synthesizing Maqashid al-Sharia and National Legal Regulations in Indonesia*, 21.

[26] Andreas Tsamados et al., "The Ethics of Algorithms: Key Problems and Solutions," *AI & SOCIETY* 37, no. 1 (2022): 224, https://doi.org/10.1007/s00146-021-01154-8.

[27] Nikmah, *God-Conscious Ai: Maqasid Al-Shari'ah In Algorithmic Design*.

[28] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective."

5. Protection of Property (ḥifẓ al-mal): Ensuring economic justice and the security of ownership.

The Maqasid al-Shari'ah framework not only serves as an evaluative tool for social phenomena, but also has the potential to form the basis for a normative and proactive ethical reconstruction in response to the challenges posed by digital technology. Unlike conventional ethical approaches, which tend to be reactive and consequence-oriented, Maqasid offers a teleological framework that places human welfare at the heart of every activity, including the design and development of technology (ethics by design).

In the context of the digital ethics crisis outlined above—encompassing crises of justice, privacy and accountability—Maqasid al-Shariʿah, as the philosophical framework of Islamic law, offers a holistic approach to assessing the ethics of technological development. Thus, the five fundamental aspects of human life (al-ḍaruriyyat al-khamsah) are understood not merely as legal objectives, but as ethical parameters guiding technological architecture from the design stage onwards.

a. Ḥifẓ ad-Din (Safeguarding the Faith): The Foundations of Ethical Values and Digital Moral Orientation

In the context of digital ethics, ḥifẓ ad-din is reinterpreted as a foundational value that guides moral orientation in technological development. This principle demands that digital systems should not be value-neutral, but rather designed with due consideration for their impact on the preservation of moral values and the integrity of meaning within the digital realm.

In operational terms, this principle can be realised through system designs that minimise the spread of harmful content, disinformation and the distortion of values, whilst ensuring that algorithms do not reinforce biases that oversimplify the complexity of religious teachings. In practice, this may involve the development of values-based content moderation mechanisms, the detection of hate speech and extremism, and the strengthening of responsible information curation systems [29].

However, the implementation of this principle requires epistemological caution, particularly in ensuring that AI-based systems do not result in oversimplifications or distortions of religious teachings due to data bias and modelling limitations[30]. Thus, ḥifẓ ad-din serves as the foundation for developing value-sensitive

[29] Ma'rifatun Nikmah, *God-Conscious AI: Maqasid Al-Shari'ah In Algorithmic Design*, 02, no. 01 (2025): 15.

[30] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," 112–13.

design that maintains a balance between freedom of information and moral responsibility.

b. Ḥifẓ al-Nafs (Preservation of Life): The Principle of Human Safety and Protection

The principle of ḥifẓ al-nafs places human safety as a fundamental priority in technological development. This principle directly addresses the crisis of accountability and the risks posed by autonomous systems. In the context of artificial intelligence, this principle is redefined as the foundation for a 'safety by design' approach, whereby systems are designed to minimise risks that could potentially endanger human life, both physically and psychologically [31].

In operational terms, this principle requires the integration of algorithmic audit mechanisms, comprehensive risk testing, and the presence of human oversight within autonomous systems [32]. Furthermore, this principle also implies normative constraints on the development of technologies that inherently have the potential to cause serious harm to human life.

In practice, these challenges are evident across various sectors, such as the potential for misdiagnosis in AI-based systems in the healthcare sector or the risks associated with the use of autonomous systems without adequate human supervision. This demonstrates that the safety of technology cannot be measured solely by its efficiency, but by the extent to which it is able to ensure human safety and survival in the broadest sense.

c. Ḥifẓ al-ʿAql (Safeguarding the Mind): Protecting Cognitive Integrity in the Digital Age

In the face of the crisis of information manipulation and algorithmic bias, ḥifẓ al-ʿaql serves as a principle that demands the protection of human cognitive integrity. Within the framework of technology design, this translates into the need for algorithmic transparency, accountability in information curation, and the prevention of data-driven manipulative practices [33].

Technological systems must be designed not to exploit users' cognitive weaknesses—such as through manipulative micro-targeting practices—but rather to support rational and balanced decision-making. Thus, ḥifẓ al-ʿaql forms the basis for the development of systems that are not only informative but also preserve human intellectual autonomy.

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[31] nikmah, *God-Conscious AI: Maqasid Al-Shari'ah In Algorithmic Design*, 15.

[32] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," 113.

[33] nikmah, *God-Conscious AI: Maqasid Al-Shari'ah In Algorithmic Design*, 15–16.

In practice, challenges to the integrity of reason are becoming increasingly complex with the emergence of phenomena such as misinformation, deepfakes, and the automation of opinion through digital bots, which have the potential to systematically manipulate public perception[34]. This situation underscores the importance of transparent system design, as well as the need to strengthen users' critical thinking skills so that they are able to evaluate information objectively.

d. Ḥifẓ al-Nasl (Preservation of the Lineage): Protection of Social Structures and Family Ethics

The principle of ḥifẓ al-nasl in the digital context is reinterpreted as an effort to preserve the continuity of social structures and the integrity of human relationships [35]. This is becoming increasingly relevant in the face of technological developments that have the potential to undermine social norms through exploitative content, identity manipulation and the disruption of interpersonal relationships.

Within the framework of design, this principle calls for regulations and systemic mechanisms capable of preventing the spread of content that undermines human dignity, such as digital pornography, child exploitation and the misuse of deepfake technology. Furthermore, technology must be designed to strengthen healthy social relationships, rather than destructively replacing them [36].

In practice, this challenge is also evident in the use of technology that has the potential to undermine the relational dynamics within the family; for instance, there are concerns that the excessive use of caregiving robots could erode the emotional bond between parents and children, ultimately weakening the family's foundations[37]. Therefore, ḥifẓ al-nasl serves as a foundation for preserving values across generations whilst ensuring that technology continues to support the development of good manners in social relations.

e. Ḥifẓ al-Mal (Safeguarding of Wealth): Economic Justice and Data Governance

Within the digital economy ecosystem, ḥifẓ al-mal provides a normative foundation for the development of a system that is fair, transparent and free from exploitation [38]. This principle directly addresses the issues of data commodification,

[34] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," 114.

[35] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," 113.

[36] Rifai and An, *An Ethical Framework for AI in Islamic Education: Synthesizing Maqashid al-Sharia and National Legal Regulations in Indonesia*.

[37] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," 115.

[38] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," 116.

inequalities in the distribution of economic benefits, and the concentration of power within digital platforms.

In practical terms, this principle demands transparency in data management, protection of digital assets, and algorithmic design that does not result in economic injustice. This includes, amongst other things, clarity in algorithmic decision-making—such as in credit risk analysis—to prevent bias and distributional inequalities in technology-based financial services [39].

Furthermore, cybersecurity is an integral part of safeguarding users' assets from the threat of financial data breaches and misuse. As such, ḥifẓ al-mal serves as a guiding principle in establishing a technology governance framework that is fair, accountable and focused on the public good.

3. The Trusteeship Approach (I'timani) within the Framework of Digital Ethics

The Trusteeship (I'timani) approach is an original ethical framework developed by the contemporary Moroccan philosopher Taha Abdurrahman as an alternative to the Western secular-liberal ethical model, which often lacks a metaphysical foundation[40]. Unlike conventional ethical approaches, which tend to be outcome-focused, I'timani ethics is grounded in profound spiritual and moral dimensions. Etymologically, the term I'timani derives from the Arabic root a-m-n, which shares the same root as Amanah (divine trust).[41].

At the heart of this philosophy lies humanity's acknowledgement of the theological mandate set out in the Qur'an (Surah Al-Ahzab: 72), wherein humanity voluntarily shoulders the Trust that was rejected by the heavens, the earth, and the mountains. From this perspective, the Amanah is not merely a legal burden, but a spiritual contract that positions humanity as Mu'taman (guardians or trustees) over all of God's creation, including science and technology[42].

This article argues that the ethical crisis in digital technology cannot be resolved solely through a regulatory-procedural approach, but requires a reconceptualisation of the moral subject and value orientation. Within this framework, the trusteeship (I'timani) approach can be understood as one of the normative frameworks in Islam-based digital ethics.

Unlike Western ethical approaches, which generally focus on external regulation, the I'timani approach emphasises the internalisation of moral responsibility

[39] nikmah, *God-Conscious Ai: Maqasid Al-Shari'ah In Algorithmic Design*, 18.
[40] Ali et al., "Islamic Ethics and AI."
[41] Ali et al., "Islamic Ethics and AI."
[42] Ali et al., "Islamic Ethics and AI."

rooted in the theological relationship between humanity, God, and reality. In this context, technology is not understood as a neutral entity, but rather as a space for ethical practice that must be subject to the principles of the common good and human dignity.

In this article, the I'timani approach is elaborated into three conceptually integrated dimensions: the ethical subject, moral orientation, and ethical safeguards. These three conceptual dimensions form a conceptual framework for digital ethics that is not only evaluative but also operational from the technology design stage (ethics by design).

a. Ethical Subject: The Role of Human Beings as Trustees (Mu'taman)

The first dimension of this approach is the reconceptualisation of the position of human beings—particularly technology developers—as mu'taman (stewards). Grounded in the concept of amanah as set out in Surah al-Aḥzāb: 72, AI developers are no longer viewed as neutral technical actors, but rather as moral agents bearing transcendental responsibility [43].

The implication of this reconstruction is a paradigm shift from being an 'agent of innovation' to an 'agent of responsibility', whereby every technological design process must take into account its impact on the public good. Thus, accountability is not merely of a legal-formal nature, but also of a moral-spiritual nature. In this context, the concept of the caliphate provides a foundation that technology is a means (wasilah) for realising humanity's responsibility in upholding a just and dignified way of life [44].

Thus, the reconceptualisation of humans as mu'taman directly addresses the crisis of accountability within digital systems—a crisis that regulatory approaches alone have so far been unable to resolve.

b. Moral Orientation: Integrating Niyyah into Ethics by Design

The second conceptual dimension is a moral orientation based on the concept of niyyah (moral intention). The I'timani approach rejects the reduction of ethics to mere end results (outcome-based ethics), and emphasises that the moral dimension must be present from the very early stages of technology design[45].

The integration of niyyah into 'ethics by design' means that every technological innovation must be assessed not only in terms of functionality and efficiency, but also in terms of its moral objectives and the motivations behind its development. This

[43] Ali et al., "Islamic Ethics and AI."

[44] Mawloud Mohadi and Yasser Tarshany, "Maqasid Al-Shari'ah and the Ethics of Artificial Intelligence: Contemporary Challenges," *Journal of Contemporary Maqasid Studies* 2, no. 2 (2023): 79–102, https://doi.org/10.52100/jcms.v2i2.107.

[45] Ali et al., "Islamic Ethics and AI."

creates an internal evaluation mechanism that ensures technology is not designed for exploitation, behavioural manipulation, or the mere accumulation of profit.

In practical terms, this principle can be put into practice through [46]:

- the formulation of ethical objectives in system design,
- audits of internal technology development processes—not merely a reactive response after a failure has occurred,
- and transparency regarding the intentions behind technology policies.

Consequently, ethics is no longer merely a reactive response to consequences, but becomes an inherent part of the innovation process itself. By incorporating the dimension of intention, this approach bridges the ethical gap that outcome-based approaches cannot address, whilst ensuring that technology remains grounded in moral principles from the design stage onwards.

c. Protective Mechanisms: The Integration of Maqasid as an Ethical Safeguard

To elaborate further, this approach also encompasses protective mechanisms through the integration of the principles of Maqasid al-Shari'ah into the technological architecture as an ethical safeguard. In this context, Maqasid not only serves as an external evaluation framework, but is also applied as a normative parameter in system design.

This concept can be understood as a form of "spiritual firewall", which serves to prevent potential harm from the earliest stages through the principle of sadd al-dhara'i (blocking the path to harm).[47]. Every technological system must be assessed for its impact on five fundamental aspects: religion, the soul, reason, lineage, and wealth.

The practical implications of this mechanism include:

- restrictions on technologies that have the potential to undermine cognitive integrity (ḥifẓ al-ʿaql),
- protection against data exploitation and privacy breaches (ḥifẓ al-māl and al-nafs),
- and filtering of content that undermines moral and religious values (ḥifẓ al-dīn).

Through this integration, technology is not only technically secure but also aligned with the principles of the common good and human dignity. The integration of Maqasid into the system architecture ensures that ethics are no longer external but inherent within the technology itself, thereby preventing harm before it occurs.

[46] Morley et al., "Ethics as a Service."
[47] Ali et al., "Islamic Ethics and AI."

d. Synthesis

Overall, the I'timani approach offers a holistic perspective on digital ethics by integrating:

1. The ethical subject (mu'taman) as a moral agent,
2. The orientation of intention (niyyah) as the basis for internal evaluation,
3. Maqasid al-Shari'ah as a systemic protective mechanism.

This approach directly addresses the three main crises in digital ethics, namely:

- the crisis of accountability → through the reconstruction of the moral subject,
- the crisis of justice → through the orientation of intention and ethical purpose,
- the crisis of privacy and dignity → through Maqasid-based protective mechanisms.

Thus, this approach makes a conceptual contribution to addressing the three main crises, whilst repositioning ethics as the ontological foundation for technological development. In this context, technology is no longer merely a tool, but a sphere of trust that demands the full moral accountability of human beings.

Consequently, the crisis of digital ethics is fundamentally rooted in the crisis of the formation of the human being as a moral subject; consequently, its resolution is insufficient at the systemic level alone, but must involve pedagogical intervention.

4. Digital Ethics and the Development of Digital Society

The rapid advancement of digital technology has led to a fundamental transformation in the structure and dynamics of social life, marked by the emergence of a digital society. A digital society refers to a social order in which interactions, knowledge production, economic activities, and decision-making processes are increasingly mediated by information technology and artificial intelligence.

Digital ethics must be understood not merely as a set of technical constraints, but as the study of the moral foundations of digital society and the principles governing human interaction within digital ecosystems[48]. In the context of development, the Maqāṣid al-Sharī'ah framework transforms technological innovation from a pursuit of technocratic efficiency into an instrument for achieving public benefit (jalb al-maṣlaḥah) and holistic human development. Aligned with the vision of Responsible Innovation (RI), the development of a digital society must proactively evaluate technological impacts to ensure that progress serves grand societal challenges without compromising human dignity [49].

[48] Fuchs, *Digital Ethics*.

[49] Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective."

Within the Islamic model of development (i'mār), technology is positioned as a wasīlah (means) that must be guided to realize falah (comprehensive well-being) in both worldly and spiritual dimensions. Consequently, building a digital society based on Trusteeship (I'timānī) ethics requires the integration of divine values into the socio-technical architecture. In this framework, the dimension of Digital Dakwah plays a crucial role; dakwah is no longer just information dissemination but a systematic effort to instill "Digital Adab" as the social capital of a virtuous digital community. Without the foundation of adab and moral responsibility (amāna), technological development risks creating mafsadah (harm) in the form of access inequality, information manipulation, and dehumanization[50].

Furthermore, the success of a dignified digital society depends on multidisciplinary collaboration involving religious authorities, technology developers, and policymakers. This synergy is essential to ensure that national technology policies remain rooted in justice ('adl) and the protection of human rights aligned with the objectives of Sharia. By positioning ethics as a navigation system, digital innovation ceases to be "value-blind" and instead becomes a civilizational driver that actively protects the intellect, soul, and honor of humanity within the cyber sphere[51].

5. Strategic Implications for Islamic Religious Education (PAI) and Digital Dakwah

The ethical crises in digital technology outlined above—including the crisis of fairness (algorithmic bias), the crisis of privacy (the commodification of data), and the crisis of accountability (the blurring of responsibility in autonomous systems)—essentially reflect not only the failure of technological systems, but also point to the absence of a moral agent capable of steering technology responsibly.

The integration of the I'timānī framework and the objectives of Sharia into the digital society necessitates profound transformations in both the educational and communicative realms of Islam. In the field of Islamic Religious Education (PAI), AI must be navigated not as a replacement for human agency, but as a wasīlah (means) to enhance the process of ta'dīb (character formation). The primary implication for PAI is the shift from a technocentric mastery of tools toward the cultivation of "Digital Adab". This curriculum reconstruction ensures that learners are not merely passive consumers of algorithmic outputs but are responsible Mu'taman (trustees) who exercise critical thinking (Ḥifẓ al-ʿAql) and moral discernment in their digital

[50] Muhammad Safwan Harun et al., "The Concept of Al-Thawābit and Al-Mutaghayyirāt in Technological Innovation According to Maqāṣid al-Sharīʿah," *Millah: Journal of Religious Studies*, August 30, 2025, 573–610, https://doi.org/10.20885/millah.vol24.iss2.art1.

[51] Surur Dan Saoban, *GOVERNING THE ALGORITHM: AI ETHICAL CONCERNS, REMEDIES, AND THE MAQĀṢID SHARĪ'AH FRAMEWORK*.

interactions. To prevent the phenomenon of "cognitive debt"—the erosion of reflective capacity due to instant technological aid—PAI must prioritize the role of the teacher as a Murabbī (spiritual guide) whose empathetic and ethical presence cannot be replicated by non-sentient systems.

Furthermore, the development of a digital society implies a significant evolution in Digital Dakwah. As AI systems, such as large language models, often carry inherent biases that may distort or marginalize authentic Islamic teachings, there is an urgent need for "Algorithmic Shura"—a multidisciplinary collaboration between religious scholars, technologists, and educators. This synergy is vital to ensure epistemic justice and to protect the public mind (Ḥifẓ al-Dīn) from misinformation and digital fitnah. Practically, this involves the creation of "Digital Spiritual Law" or Sharia-compliant standards for AI-driven religious content, ensuring that every algorithmic decision is grounded in truthfulness (ṣidq) and social welfare (maṣlaḥah).

Finally, the systemic implementation of this framework encourages Islamic educational institutions to become proactive centers for Responsible Innovation. By embedding Maqāṣid principles—such as the protection of privacy (Ḥifẓ al-ʿIrḍ) and the preservation of intellectual integrity—into the very design of educational platforms (Ethics by Design), the Muslim community can offer a unique contribution to the global discourse on technology. This holistic approach ensures that the development of a digital society remains anchored in divine values, transforming AI into a tool for human flourishing (falaḥ) and spiritual perfection rather than an instrument of dehumanization.

Conclusion

The rapid development of Artificial Intelligence (AI) has generated profound ethical challenges that extend beyond technical concerns to encompass broader issues of justice, privacy, and accountability within the emerging digital society. These challenges reveal a fundamental gap between technological advancement and the ethical frameworks required to guide it, resulting in risks to human dignity, social cohesion, and moral responsibility. This study has demonstrated that existing dominant approaches, particularly those rooted in Western ethical paradigms and reactive regulatory models, remain insufficient in addressing the spiritual and teleological dimensions of technological development. In response to this gap, this article has proposed an integrative framework of digital ethics grounded in Maqāṣid al-Sharī'ah and strengthened by the trusteeship (I'timānī) approach. Through this integration, digital ethics is redefined not merely as an evaluative tool, but as a proactive and systemic foundation that informs the design, development, and governance of technology. The framework is articulated through three interrelated dimensions: the reconstruction of humans as moral agents (mu'taman), the integration of niyyah within an ethics-by-design paradigm, and the incorporation of Maqāṣid principles as a protective ethical mechanism within technological systems.

This study further demonstrates that the integration of these frameworks provides a coherent response to the three major ethical crises in digital technology. The crisis of accountability is addressed through the redefinition of humans as morally responsible trustees; the crisis of justice is mitigated through the orientation of intention and ethical purpose in technological development; and the crisis of privacy and human dignity is managed through Maqāṣid-based safeguards embedded within digital systems. In this sense, ethics is repositioned as the ontological foundation of technological innovation, rather than as a secondary or corrective mechanism. Moreover, this article highlights that the development of a digital society cannot be separated from the cultivation of ethical values and moral agency. The integration of Islamic ethical principles contributes to the formation of a digital ecosystem that is not only technologically advanced but also just, humane, and oriented toward the common good (maṣlaḥah). Within this framework, digital dakwah and Islamic Religious Education (PAI) play strategic roles in fostering "Digital Adab" as the ethical capital of society, ensuring that individuals are not merely users of technology but responsible moral subjects capable of directing it toward constructive ends. In conclusion, this study offers a theoretical contribution by bridging Islamic ethical philosophy with contemporary technological discourse, while also providing practical implications for education, digital communication, and policy development. It affirms that the future of digital society depends not only on innovation, but on the ethical vision that guides it. Therefore, embedding Maqāṣid al-Sharī'ah and the I'timānī approach into the core of technological development is essential for ensuring that digital transformation remains aligned with human dignity, justice, and the higher purposes of life.

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