

Addressing Ethical Issues in the Field of Information: Digitalization, Media, and Algorithms

Nurhadi A. Mardjudo^{1*}

¹ Islamic Religious Education Study Program State Islamic University Datokarama Palu, Indonesia

Corresponding Author: Nurhadi A Mardjudo E-mail: Mardjudonurhadi@gmail.com

ARTICLE INFO	ABSTRACT
Volume: 4 ISSN: 2963-5489 KEYWORD Digital ethics, information ethics, algorithms, digitalization, Islamic values, privacy, artificial intelligence, media ethics, technology governance, social justice.	This research examines ethical issues in the information field, particularly concerning digitalization, media, and algorithms in the context of Islamic values. The study aims to identify major ethical challenges arising from digital transformation and propose solutions based on Islamic principles and contemporary ethics. Using a qualitative approach with literature review methodology, this research analyzes various scholarly works, Islamic sources, and case studies related to digital ethics. The findings reveal that key ethical issues include privacy violations, algorithmic bias, misinformation spread, and digital inequality. The study concludes that an integrated ethical framework combining Islamic values such as justice (adl), trustworthiness (amanah), and beneficence (maslahah) with universal ethical principles is essential for addressing these challenges. This framework can guide policymakers, technology developers, and users in creating a more ethical digital ecosystem that respects human dignity and promotes social welfare.

1. Introduction

The digital age has fundamentally changed the information landscape, creating both opportunities and complex ethical challenges. The digitization of information, the development of digital media, and the use of algorithms in various aspects of life have had a significant impact on privacy, justice, and social welfare.¹ Rapid digital transformation requires a deep understanding of the ethical implications of information technology, especially in the context of a diverse society with different cultural and religious values.

From an Islamic perspective, the management of information and technology must be in line with fundamental moral principles such as justice (adl), trustworthiness (amanah), and public interest (maslahah).² However, reality shows that the development of digital technology often precedes ethical considerations, resulting in various problems such as privacy violations, algorithmic bias, the spread of disinformation, and the digital divide.

This study aims to identify key ethical issues in the field of digital information and propose a framework that integrates Islamic values with contemporary ethical principles. The significance of this study lies in the urgency of building an ethical and sustainable digital ecosystem, especially in Indonesia as the country with the largest Muslim population in the world that is undergoing massive digital transformation.

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2. Literature Review

Discussions about digital ethics have been a major concern for academics and practitioners in the last decade. Floridi (2013) in his work “The Ethics of Information” emphasizes that information is not just data, but has a moral dimension that affects human life.⁴ He proposes the concept of “information ethics” as a branch of applied ethics that deals with moral issues related to the creation, organization, dissemination, and use of information.

In the context of algorithms, O'Neil (2016), in her book “Weapons of Math Destruction,” reveals how algorithms can create and reinforce social injustice.⁵ This research shows that algorithms designed without ethical considerations can produce systematic biases that harm certain groups, especially minorities and marginalized groups.

From an Islamic perspective, Bunt (2003) in “Islam in the Digital Age” discusses how Muslims navigate the digital space while maintaining Islamic values.⁶ He explains that digital technology can be a tool to promote Islamic values such as justice and knowledge, but it can also be a source of slander and deviation if not managed wisely.

A recent study by Mittelstadt et al. (2016) identifies six areas of ethics in big data algorithms: (1) inconclusive evidence, (2) inscrutable evidence, (3) misguided evidence, (4) unfair outcomes, (5) transformative effects, and (6) loss of autonomy (traceability).⁷ This framework provides a comprehensive basis for analyzing ethical issues in algorithm-based systems.

In the context of digital media, Waisbord (2018) emphasizes that social media has created a new information ecosystem that requires a different ethical approach from traditional media. Challenges such as echo chambers, filter bubbles, and viral misinformation demand an adaptive and responsive ethical framework.

These previous studies provide an important foundation, but there is still a gap in comprehensively integrating Islamic perspectives with contemporary digital ethical principles, especially in the context of Indonesia, which has unique socio-cultural characteristics.

3. Methodology

This study uses a qualitative approach with a literature review method to analyze ethical issues in the field of digital information.⁹ This method was chosen because it allows for in-depth exploration of various theoretical and practical perspectives related to digital ethics.

3.1 Subheading (if any)

Data was collected through a literature review of various sources, including: (1) peer-reviewed academic journals discussing digital ethics, algorithms, and media; (2) reference books related to information philosophy and technology ethics; (3) primary Islamic sources (the Quran and Hadith) and secondary sources (tafsir and fiqh); (4) research reports and white papers from international organizations; and (5) case studies of digital ethics implementation in various countries.

The inclusion criteria for the literature reviewed were: publication within the last 15 years (2010-2025) for contemporary sources, direct relevance to the topic of information ethics and digitization, credibility of sources (indexed journals, reputable publishers, reputable institutions), and diversity of perspectives (Western, Islamic, and local Indonesian).

3.2 Subheading (if any)

The collected data were analyzed using thematic content analysis.¹⁰ The analysis process included: (1) coding and categorizing ethical issues that emerged in the literature; (2) identifying dominant patterns and themes related to digitization, media, and algorithms; (3) comparing Western and Islamic ethical perspectives; (4) synthesizing to develop an integrative ethical framework; and (5) critically evaluating the solutions proposed by various sources.

The validity of the research is maintained through source triangulation, where various types of literature from different disciplines and perspectives are used to verify the findings. Reliability is maintained through systematic documentation of the data coding and categorization process.

4. Results and Discussion

4.1 Key Ethical Issues in Information Digitalization

Literature analysis reveals four fundamental ethical issues in the digital age:

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First, privacy and personal data protection. Digitalization has resulted in massive data collection, often without explicit consent or full understanding from users.¹¹ In Islam, the concept of privacy (*sitr*) is highly respected, as stated in QS. Al-Hujurat: 12, which prohibits *tajassus* (seeking out other people's personal information).¹² However, the practices of tracking, profiling, and data mining by technology companies often disregard this principle.

Second, algorithmic bias and discrimination. Machine learning algorithms can replicate and reinforce biases that exist in training data, resulting in discriminatory decisions in various domains such as job recruitment, credit lending, and law enforcement.¹³ From an Islamic perspective, this contradicts the principle of justice (*adl*), which is a fundamental value in Sharia law. The Quran emphasizes the importance of justice even towards enemies (QS. Al-Maidah: 8).

Third, misinformation and disinformation. Digital media facilitates the spread of false information at an unprecedented speed and scale.¹⁴ In Islamic teachings, honesty (*shidq*) and verification of information (*tabayyun*) as mentioned in QS. Al-Hujurat: 6 are moral obligations. However, social media algorithms that prioritize engagement often promote sensational content without considering accuracy.

Fourth, the digital divide. Not all individuals and communities have equal access to digital technology and the literacy necessary to use it effectively.¹⁵ From an Islamic perspective, this creates injustice that contradicts the principles of *musawah* (equality) and *maslahah ammah* (public welfare).

4.2 An Integrative Ethical Framework for Addressing Digital Issues

Based on this analysis, this study proposes an integrative ethical framework that combines Islamic principles with contemporary digital ethics:

1. The Principles of Trustworthiness and Accountability

Technology developers, digital platforms, and users must carry out their responsibilities with accountability.¹⁶ This includes transparency in data use, documentation of algorithmic systems, and clear accountability mechanisms in the event of errors or misuse.

2. Principle of Justice (*Adl*) and Non-Discrimination

Algorithms and digital systems must be designed to promote justice and avoid systematic bias. This requires regular algorithm audits, diversity in development teams, and redress mechanisms for those harmed by algorithmic decisions.¹⁷

3. Principle of *Maslahah* and Beneficence

Digital technology must be designed to maximize benefits (*maslahah*) and minimize harm (*mafsadah*). This is in line with the "do no harm" principle in Western technology ethics. Ethical impact assessments should be an integral part of technology development.¹⁸

4. Principles of Transparency and *Tabayyun*

Users should be given clear information about how their data is used and how algorithms make decisions that affect them. This is in line with the obligation to verify information (*tabayyun*) in Islam and the principle of informed consent in modern ethics.

5. Principle of Inclusivity and Equality

Digital technology must be designed to be accessible to everyone, regardless of socioeconomic status, physical abilities, or background. This requires a commitment to overcoming the digital divide and ensuring digital literacy for all.¹⁹

4.3 Practical Implementation and Challenges

The implementation of this ethical framework faces several challenges. First, the technical complexity of machine learning algorithms often makes them difficult to audit and explain, creating tension between innovation and accountability.²⁰ Second, the business models of technology companies that rely on targeted advertising create economic incentives to collect and exploit user data. Third, the lack of digital literacy and ethical awareness among users facilitates exploitation.

To overcome these challenges, a multi-stakeholder approach involving the government, the technology industry, academics, and civil society is needed. Regulations such as the GDPR in Europe and the Personal Data Protection Law in Indonesia provide a legal framework, but implementation and enforcement remain challenges.²¹

In addition, digital ethics education must be integrated into formal education curricula and professional training programs. In the Indonesian context, integrating Islamic values into digital ethics education can help build stronger moral awareness among users and technology developers.

5. Conclusion

This study identifies four key ethical issues in the digital age: privacy violations, algorithmic bias, misinformation, and the digital divide. An integrative ethical framework that combines Islamic principles (amanah, adl, maslahah, tabayyun, musawah) with contemporary digital ethics offers a comprehensive approach to addressing these challenges.

Implementing this framework requires a commitment from all stakeholders to prioritize ethical considerations in the development and use of digital technology. Strong regulation, digital ethics education, and effective accountability mechanisms are key to creating a digital ecosystem that respects human dignity and promotes social welfare.

Further research is needed to explore specific applications of this framework in various contexts such as e-commerce, e-government, and digital education, as well as to develop metrics and practical tools for evaluating the ethical compliance of digital systems.

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