



Theoretical Study: Ethics in the Use of Technology in Islam

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ABSTRACT

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In the rapidly advancing digital era, technology has become an integral part of daily life, including within Muslim communities. This study discusses the ethics of technology usage in Islam, focusing on how Islamic principles can be integrated into modern technological practices. Ethics in Islam extends beyond the rules of fiqh, encompassing morality, social responsibility, and the impact of technology on spiritual life. The study emphasizes the importance of using technology wisely, in accordance with the teachings of the Qur'an and Hadith, while considering the potential benefits and harms. It also examines the perspectives of Islamic scholars and thinkers on technological advancements, and how Muslims can use technology for good, avoid misuse, and maintain a balance between technological progress and Islamic values. In this article, a qualitative method is employed, specifically through library research, to seek and acquire data. The research in this article utilizes library sources such as journals and other relevant materials, which are then collected. To find references related to the article's title, data collection techniques involve searching for various sources digitally/online. Once the references are gathered, the data from these sources are analyzed, paraphrased, and organized to produce a coherent, comprehensive, and relevant concept in accordance with the specified title. The research findings suggest that technology should be used as a tool to strengthen faith, enhance knowledge, and support noble objectives in Islam, while adhering to the ethical principles established in the Sharia.

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Introduction

The ethical use of technology in Islam is very important because technology, although bringing great benefits, also has the potential to be misused, which can have a negative impact on individuals and society. Islamic ethics provides moral guidelines to ensure that the use of technology is in line with Islamic values, such as responsibility, amanah (trust), justice, and public

benefit (shared prosperity). The importance of ethical use of technology in Islam is protecting moral and spiritual values. Technology can affect a person's morals and spirituality. For example, use of social media or the internet without ethical guidelines can lead to unethical behavior, such as the spread of slander, pornography or misleading information. Islamic ethics reminds people to always act in accordance with Islamic moral principles in every aspect of life, including technology.

Maintaining Justice and Responsibility. Technology can influence social and economic relationships. In business or online transactions, for example, Islamic ethics emphasizes honesty, justice and responsibility. Muslims are taught to use technology fairly, without harming other parties, and to maintain trust in every transaction or use of technology. **Preventing Technology Abuse.** Without ethics, technology can be misused for harmful purposes, such as hacking, cyberbullying, or identity theft. Ethics in Islam requires every individual to use technology wisely and responsibly, and to refrain from actions that harm other people.

Ensuring the Use of Technology for the Public Benefit. Technology must be used to bring benefits to society, not the other way around. Islamic ethics emphasizes the importance of using technology for useful purposes, such as education, da'wah, and the development of science, which ultimately contributes to the welfare of humanity.

Regulating Technological Development in an Islamic Context. As technology develops rapidly, there is a need to continually examine how this new technology can or should be used within the framework of Islamic ethics. This includes issues such as artificial intelligence, biotechnology, etc., which require clear ethical guidance from an Islamic perspective. (Faiz, Ula, and Zubaidi 2022) By following the ethics of using technology in Islam, Muslims can ensure that technology is used as a tool to support a better life, without sacrificing fundamental Islamic values.

Ethics in the use of technology in Islam is very important to ensure that technological advances do not conflict with the moral and spiritual principles taught by Islam. Technology users must be responsible in their use. This means technology must be used for useful and constructive purposes, not to harm others or violate sharia laws. The use of technology must be fair and not harm other parties. For example, in using social media, a Muslim must be careful not to spread slander, hoaxes, or content that could cause injustice. Technology must be used for the public benefit, which means for the good of humanity as a whole. Technological innovations that benefit society at large, such as in the fields of health or education, are in line with this principle.

Islam places great emphasis on the importance of maintaining privacy. The use of technology, especially in the digital world, must respect individual privacy and not commit violations such as hacking, unauthorized distribution of personal information, or data breaches. Technology must be used in a way that avoids damage (facade). This includes using technology that damages the environment, spreading inappropriate content, or engaging in cyberbullying.

Technology must be used with wisdom, which includes making wise decisions regarding the use of technology and ensuring that any actions taken through technology are in line with Islamic moral and ethical values.

Every use of technology must be in accordance with Islamic law. (Sugiyanto, Rahman, and Santoso 2020) This means that technology should not be used for prohibited activities, such as online gambling, pornographic content, or other acts that are contrary to Islamic laws. By following these ethical principles, Muslims can ensure that they utilize modern technology in a responsible and beneficial way, while maintaining the spiritual and moral values that are at the core of their lives.

Issues regarding the ethical use of technology in Islam can be seen from various aspects, especially in terms of how technology affects morality, social responsibility and individual integrity. The following are some of the main problems, namely: **Dissemination of Un-Islamic Content:** Technology, especially the internet and social media, makes it easier to access various types of content that are contrary to Islamic teachings, such as pornography, violence and hoaxes. This poses a major challenge for Muslims in maintaining their moral and spiritual integrity amidst easy access to information that is not always in accordance with Islamic values. **Privacy Breach and Data Misuse:** In the digital era, personal data is often misused for commercial or even criminal purposes. This raises serious problems in Islam, which highly values the importance of maintaining individual privacy and honor (*Hifz al-'Ird*). Misuse of data can damage a person's reputation and violate privacy rights guaranteed in Islam. **Use of Technology for Prohibited Activities:** Some technologies are used for activities that are prohibited in Islam, such as online gambling, usurious transactions, or spreading false information. The use of technology for this purpose not only violates sharia law but also undermines the social order that Islam desires.

Technology Dependence and Spiritual Degradation, Excessive dependence on technology can lead to spiritual degradation, where individuals focus more on gadgets and technology than on worship and spiritual reflection. This can result in neglect of religious responsibilities and a decline in the quality of the spiritual life of Muslims.

Digital Divide and Social Justice, Advanced technology is often inaccessible to all levels of society, creating a digital divide. In the Islamic context, this raises issues of social justice (*adl*), where access to technology and information should be equal and fair for everyone, not just for certain groups.

Effect of Technology on Family Values, Unwise use of technology can disrupt family harmony. For example, excessive use of social media can reduce time spent with family, cause emotional alienation, and damage family bonds that are important in Islam.

To solve this problem, it is necessary to have a deep understanding of technology ethics in

Islam as well as the application of relevant sharia principles in the daily use of technology. Muslims are expected to use technology wisely, consider social and moral impacts, and adhere to the ethics taught by the Islamic religion. Based on the background of the problem above, the aim of this research is to examine in depth the ethics of using technology in Islam to guide people in facing new challenges arising from technological advances.

Method

In this article, a qualitative method is used where this research method produces descriptive data consisting of words, both written and spoken, as well as observable behavior; This approach emphasizes understanding the context and the individual as a whole.(Zuchri Abdussamad 2021) In the form of library research or library research in searching for and obtaining data, is a theoretical study, references and other scientific literature related to the culture, values and norms that develop in the social situation studied.(Sari 2020) The research in this article uses library data sources in the form of journals and other sources related to this article which were then collected. In looking for reference sources related to the discussion of the title of this article, data collection techniques were used by searching for various reference sources digitally/online. After obtaining and collecting various reference sources, the data contained in the various reference sources is analyzed and paraphrased and then compiled so as to produce a good, complete and relevant concept according to the specified title.

Result and Discussion

1. Definition and Concept of Ethics

There are two understandings of ethics, the first as practical, namely ethics means good moral values and norms that are either practiced or not practiced, even though they should be practiced, or are called morals or morality, namely what should be done, should not be done, worth doing, and so on. The second reflection is moral thinking.(Bertenz 2007) Ethics arise from habit, namely an activity that is always done repeatedly, so that it is easy to do. Meanwhile, the etymological definition of ethics from the word ethikos means morals, civility, or good behavior and actions.(Weny 2021)

In Islam, ethics is called morals, while the similarities lie in their objects, namely that they both discuss the good and bad of human behavior. Meanwhile, the difference is that ethics determines whether a person is good or bad using the standard of reason. As for morality, it is determined by the standards of the Shari'a, namely the Koran and Sunnah. Morals are knowledge that explains good and bad or right and wrong, regulates human interactions, and determines the

ultimate goal of one's efforts and actions. Morals are a habit or attitude that is deep in the human soul where actions arise easily without prior consideration which are carried out repeatedly until they become habits and these actions can lead to good and bad actions.(Abudin Nata 2014) But not all good or bad deeds can be said to be moral acts. Many actions cannot be called moral actions, and cannot be said to be good or bad. Human actions that are carried out not based on their will or choice, through breathing, blinking, turning back and forth, the heart, and being surprised when suddenly it is light after previously being dark are not called morals, because these actions are done without choice.

Ethics according to philosophy is the science that discusses good and bad by paying attention to human actions as far as the mind can know. Ethics is a branch of philosophy that studies human behavior.(Muhammad Amri 2018) So, ethics is an institution of behavior for a person or group of people which is composed of a system of values or norms taken from the natural phenomena of that group of people.

The aim of ethics in a philosophical view is to obtain the same idea for all humans at all times and places with a measure of good and bad behavior as far as the mind can know. However, in trying to achieve this goal, ethics experiences difficulties, because the views of each group in this world regarding good and bad have different measurements or criteria.(Sri Wahyuningsih 2022)

Experts argue that ethics is related to four things, namely: first, it can be seen in terms of the object of discussion, ethics seeks to discuss blindness committed by humans. Second, seen in terms of its source, namely reason and philosophy. As a result of thought, ethics is not absolute, absolute, nor universal. Third, seen in terms of function. Namely, ethics functions as an assessor, determiner, determiner of an action that will be judged as good, bad, noble, humiliating and so on. Fourth, look at it in terms of its nature. Namely, ethics is relative, which can change according to developments over time. With these characteristics, ethics is more of a science related to efforts to determine whether actions carried out by humans are good or bad, in other words ethics are rules or patterns of behavior produced by humans.(Muhammad Amri 2018)

Ethics is identified with morals, although the two terms have differences, namely morals or morality for evaluating actions carried out, or a code of ethics for actions consisting of traditional values or norms and aspirations accepted by a group of people in determining whether behavior is good. or evil in the life of an individual in society.(Ahmad Mohd Salleh 2002) So morals are human actions or behavior that are classified as behavior that is accepted in a particular society. Meanwhile, ethics is the study of the prevailing value system.(Haidar Baqir 2005)

The words ethics, morals, morals, are linguistically the same, namely human actions or behavior. Where the object of ethics is human action, it has become a discussion that continues to this day discussed. Then all these terms are often used as synonyms without any difference to

express human behavior which is their habitual behavior. In fact, there is the most fundamental difference, namely the difference in the basis for determining the rightness and wrongness of an action, where the moral benchmark is the norms that apply in society, the ethical benchmark is the human mind or reason while the moral benchmark is God's commands which are based on the Koran and hadith.(Rosihon Anwar 2011)

Based on the explanations above, the author concludes that Ethics is a science that seeks to determine human actions based on an assessment of what is good and bad, or what is obligatory and prohibited. These judgments are based on various factors such as authority directives, human behavior, habits, norms, guidelines, and beliefs, and are considered as relative values in humans' rational view of action. and the ethics that will be discussed in this article are the ethics of using technology which originates from Islamic law and also in general.

2. Use of Technology

Technology use refers to the application and utilization of various technological tools, devices, and systems to achieve specific goals, complete tasks, or increase efficiency and effectiveness in various aspects of life. Technology covers various fields such as information and communication, health, industry, education, and entertainment.

Technology use is the way in which individuals, organizations, or societies utilize technological devices and systems for various purposes. This includes the use of hardware, software, and digital methods and techniques that facilitate daily and professional activities. Technology is used in a variety of contexts, including:

- a. Industry: Production process automation, supply chain management and big data analysis.
- b. Health: Medical devices, telemedicine, electronic medical records, and diagnostic technology.
- c. Education: E-learning, educational applications, and teaching aids.
- d. Government: Government information systems, e-Government, and technology-based public services.
- e. Entertainment and Media: Video streaming, social media, and digital gaming.

Based on the definition above, the use of technology certainly has several benefits, namely:

1) Increased Efficiency

Technology enables the automation of routine tasks, reducing the time and effort required to complete work. For example, project management software helps teams plan and execute projects more efficiently.

2) Access to Information

Facilitate access to information and knowledge from various sources quickly and easily, such as via the internet and digital databases.

3) Communication

Facilitate faster and broader communication via email, instant messaging, and social media.

4) Innovation

Drive innovation by providing tools and platforms for new research, development and experimentation.

5) Welfare

Improving quality of life through health technology, fitness apps and digital solutions that support individual well-being.(Husnah. Z 2020)

Apart from having benefits, the use of technology also has challenges that users must understand. The challenges in using technology are:(Sulaiman 2012)

a) Security and Privacy

Risks related to data security, cyber threats and protection of personal information. Users need to keep their data secure and comply with privacy policies.

b) Dependency

Excessive reliance on technology can lead to problems such as loss of manual skills, health problems such as visual impairment, and sleep disorders.

c) Digital Divide

Inequalities in access to technology between individuals or groups of society, which can exacerbate social and economic disparities.

d) Environmental Impact

The production and disposal of technological devices can have significant environmental impacts, such as e-waste and high resource use.

The use of technology involves implementing various digital tools and systems to improve efficiency, access to information, and quality of life. However, it is important to address challenges related to safety, dependability, and environmental impact, and implement ethical use of technology to ensure maximum benefits with minimal negative impacts.

3. Theological foundations for the ethics of using technology

In Islamic ethics, key concepts such as amanah (trust), adil (justice), ihsan (benevolence), and maslahah (public welfare) play a crucial role in guiding behavior and moral decisions, including within the context of technology use.

Below is an explanation of each concept and its relevance in the use of technology:

- a. Ethical challenges in the use of technology
 - 1) Amanah (Trust) in Islamic ethics refers to holding trust or responsibility with complete integrity. This includes honesty in conveying information and performing tasks, as well as properly safeguarding the rights of others. In the context of technology, this relates to:
 - a) Data Security: In the realm of technology, amanah is related to how personal data and sensitive information are managed. Technology companies must ensure that user data is protected and not misused.
 - b) Transparency: Developers and technology service providers must be transparent about how data is used and provide clear information to users about privacy policies.
 - 2) Adil (Justice) means treating all parties fairly and equally, giving each their due rights without any deviation. In the context of technology, this relates to:
 - a) Equal Access: In the use of technology, justice means ensuring that technology is accessible to everyone, without discrimination based on race, gender, or social status.
 - b) Algorithms and Bias: The use of algorithms in technology must be monitored to ensure that no biases harm certain groups and that decisions made are fair to all users.
 - 3) Ihsan (Benevolence) refers to acts of kindness and generosity, going beyond merely fulfilling obligations. It involves efforts to provide greater benefits to others. In the context of technology, this relates to:
 - a) Inclusive Design: Technology should be designed with the interests of all parties in mind, providing broad benefits, such as creating applications that are accessible to people with disabilities.
 - b) Social Responsibility: Technology companies are encouraged to contribute to society through social initiatives and programs that have a positive impact.
 - 4) Maslahah (Public Interest) means prioritizing the general interest or the well-being of society as a whole in decision-making and actions. In the context of technology, this relates to:
 - a) Beneficial Innovation: Technology should be developed and applied with the general benefit in mind, such as improving quality of life and societal well-being.
 - b) Ethical Use: The use of technology, including social media and digital tools, should consider its social impact and avoid negative effects that could harm the wider community.(Husnah. Z 2020)

Islamic ethical concepts like amanah, adil, ihsan, and maslahah provide essential guidance in the use of technology. By applying these principles, the development and use of technology can be carried out ethically and responsibly, ensuring that technology provides fair and positive benefits to all members of society."

4. Cybercrime and user responsibility

Cybercrime refers to various forms of criminal activities carried out through the internet or using digital technology. Cybercrime includes activities such as hacking, online fraud, identity theft, malware distribution, and Distributed Denial of Service (DDoS) attacks. Given its broad and evolving nature, user responsibility in addressing and preventing cybercrime is crucial.

The following is an explanation of cybercrime and user responsibility:

a. Types of Cybercrime

- 1) Hacking: An illegal act of gaining unauthorized access to a computer system or network, often to steal data or damage the system.
- 2) Phishing: A fraudulent technique used to obtain personal information, such as passwords or credit card numbers, by posing as a trusted entity in electronic communications.
- 3) Identity Theft: The use of someone else's personal data without permission to commit fraud or illegal activities, such as opening a credit account in another person's name.
- 4) Malware: Malicious software, such as viruses, worms, or trojans, designed to damage computer systems, steal data, or gain unauthorized access.
- 5) DDoS Attacks: Attempts to make an online service unavailable by overwhelming a server or network with a massive amount of traffic. (Anggusti 2022)

b. User Responsibilities

1) Personal and Data Security

Use Strong and Unique Passwords: Create complex and different passwords for each account, and use a password manager to manage them.

2) Enable Two-Factor Authentication (2FA)

Add an extra layer of security by enabling 2FA on important accounts to protect access.

c. Education and Awareness

1) Be Wary of Phishing

Do not click on links or attachments from unknown or suspicious sources, and always verify the authenticity of communications requesting personal information.

2) Understand Security Risks

Enhance your knowledge of potential security risks and how to protect yourself from cybercrime.

d. Device Protection

1) Install and Update Antivirus Software

Use trusted antivirus and anti-malware software and ensure it is always up to date.

2) Update Software

Always perform updates on operating systems and applications to close security gaps that cybercriminals could exploit.

e. Safe Network Usage

1) Use a VPN

When connected to public networks, use a Virtual Private Network (VPN) to encrypt your internet connection and protect your data.

2) Avoid Unsecured Public Wi-Fi Networks

Avoid accessing sensitive information while using unsecured public Wi-Fi networks.

f. Reporting and Follow-Up

1) Report Cybercrime Incidents

If you become a victim or witness suspicious activity, report it immediately to the authorities or your internet service provider.

2) Follow-Up on Cases

Follow the instructions from authorities and service providers to address the impact of cybercrime and protect your personal data.

Addressing cybercrime requires active responsibility from every internet user. By understanding the types of cybercrime, implementing good security practices, and raising awareness of potential threats, users can help protect themselves and society from these increasingly complex risks. Active involvement in education and reporting is also crucial to creating a safer digital environment.

5. Dissemination of information and hoaxes

The spread of information and hoaxes is a significant issue in today's digital era, considering the speed and reach of information that can spread across various platforms.

Information dissemination refers to the process of sharing and spreading data, news, or knowledge to the public. This information can include current news, scientific research, or practical guides, and it can be disseminated through various media such as television, radio, newspapers, websites, and social media. Types of Information: Accurate Information: Data or news that has been verified for its accuracy and is based on facts. Misleading Information: Data that may appear to be true at first glance but contains elements that are not entirely accurate or misleading.

Positive Impacts of Information Dissemination: Public Education: Helps the public stay informed about the latest developments, health, and social issues. Decision Making: Facilitates better decision-making by providing relevant data and analysis. Transparency and Accountability: Enhances transparency in government and other sectors, ensuring public accountability.

Hoaxes (Fake News) are false or misleading information spread with a specific purpose, such as creating panic, manipulating public opinion, or gaining financial profit. Hoaxes are often designed to appear convincing and can spread quickly through social media and other digital platforms.

Types of hoaxes that need to be understood include: Fake News Hoax: Completely false news created to deceive readers. Misleading Hoax: True news or information presented in a misleading context to achieve a specific goal. Satire or Parody Hoax: Information that may be intended as a joke but can be taken seriously by some people.

Hoaxes or fake news certainly have negative impacts, such as misleading the public, confusing or deceiving people about real facts or situations. They can create panic by causing uncertainty or panic among the public, like hoaxes about health or safety. Hoaxes can also damage reputations by spreading false information about individuals, organizations, or countries. Additionally, they can influence elections by manipulating public opinion and affecting the election results through the dissemination of false information.(Effendi 2023)

Several measures can be taken to combat the spread of information and hoaxes, including: Verifying Sources: Check Credibility: Always check the credibility of information sources before

believing or spreading them. Trusted sources usually have a good track record and are supported by strong evidence.

Use Verification Tools: Platforms like Snopes, FactCheck.org, or other news verification tools can help check the accuracy of information. **Through Media Education: Public Education:** Enhance public understanding of how to distinguish between accurate information and hoaxes. Media education and information literacy are essential. **Critical Skills:** Teach critical thinking skills to analyze information and recognize manipulation techniques. **Reporting and Action:**

Report Fake Content: Report hoaxes or misleading information to social media platforms or service providers for further action. **Follow Platform Guidelines:** Social media platforms often have guidelines and tools to address misinformation. **Promote Transparency:** Spread accurate information to counter the spread of hoaxes. Support policies and regulations that promote transparency and accountability in information dissemination. The dissemination of accurate information is crucial for public health, transparency, and sound decision-making, while hoaxes can be harmful and misleading. Tackling this challenge requires a collective effort in information verification, media education, and enforcing policies that support truth and transparency.

6. Integration of Islamic values in technology

Integrating Islamic Values in Technology involves applying Islamic ethical principles in the development, use, and management of technology. Below are some ways Islamic values can be integrated into technology: (Wulan et al. 2021)

- a. Amanah (Trust): Upholding responsibility and trust with integrity. This can be achieved through:
 - 1) Data Security: Using technology in ways that protect user privacy and personal data security.
 - 2) Transparency: Providing clear and honest information about data usage and privacy policies.
- b. Adil (Justice): Treating all parties fairly and equally. This includes:
 - 1) Equal Access: Developing technology that is accessible to everyone, without discrimination based on race, gender, or social status.
 - 2) Inclusive Design: Creating technological solutions that consider the needs of various community groups, including people with disabilities.
- c. Ihsan (Benevolence): Acting with kindness and generosity. For example:

- 1) Humanitarian Features: Designing technology with features that enhance the quality of life and well-being of users, such as mental health apps or social support platforms.
 - 2) Social Engagement: Implementing principles that support corporate social responsibility, such as programs that benefit society.
- d. Maslahah (Public Welfare): Prioritizing public welfare in decision-making. This involves:
- 1) Sustainable Innovation: Developing technology that provides broad benefits to society and supports public welfare, such as solutions for education, health, or the environment.
 - 2) Ethical Use: Ensuring that technology is used in ways that do not harm society or the environment and avoiding negative impacts that could jeopardize public welfare.
 - 3) Ethics and Regulation: Upholding ethical principles and adhering to regulations. This includes:
 - 4) Legal Compliance: Following laws and regulations related to technology while still considering Islamic ethical principles.
 - 5) Ethical Implementation: Establishing a code of ethics and internal policies that reflect Islamic values in technological practices, such as social responsibility and the protection of user rights.

Integrating Islamic values into technology requires an approach that prioritizes honesty, justice, benevolence, and public welfare. By applying these principles, technology can be developed and used in a beneficial and ethical manner, supporting the well-being of individuals and society as a whole. The principle of Amanah in technology ensures trust, Justice ensures equal access, and Maslahah ensures public welfare.

7. Ethics of technology users in various sectors

The ethics of technology users in various sectors are crucial to ensuring that technology is used responsibly, fairly, and in alignment with moral values. Each sector faces unique challenges and opportunities related to technology ethics, and the application of ethical principles can vary depending on the specific context. Below is an explanation of the ethics of technology users in several key sectors. (Faiz et al. 2022)

a. Health Sector

Challenges faced include patient data privacy, which involves protecting sensitive medical information; data security, which involves risks of hacking and health data breaches; and

equitable access, which involves avoiding inequalities in access to health technology. The ethics that must be applied include confidentiality, which ensures that patients' health data is well-protected and used only for medical purposes; security, which involves implementing strict security protocols to protect data from unauthorized access; and fair access, which involves improving access to health technology across all communities, including underserved communities.

b. Education Sector

The challenges faced include technology access, which refers to inequalities in access to digital tools and learning resources; student data security, which involves protecting students' personal data; and responsible use, which involves preventing the misuse of technology in learning. The ethics that must be applied include inclusivity, which ensures all students have equal access to educational technology and digital resources; privacy, which involves protecting students' personal data and using information ethically; and ethical pedagogy, which involves using technology to support effective and fair teaching methods.

c. Business and Corporate Sector

The challenges faced include the use of consumer data, which involves the ethical collection and utilization of consumer data; cybersecurity, which involves protecting sensitive information and preventing cyberattacks; and transparency and honesty, which involve avoiding fraudulent practices or data manipulation.

The ethics that must be applied include transparency, which involves providing clear and honest information about how consumer data is used; security, which involves implementing strong security measures to protect business and consumer data; and regulatory compliance, which involves adhering to laws and regulations related to data privacy and cybersecurity.

d. Government and Public Sector

Challenges that will be faced include public data usage, which involves managing and protecting citizens' data; transparency and accountability, which involve ensuring that technology is used for public benefit with integrity; and national security, which involves protecting data and systems from cyber threats.

The ethics that must be applied include privacy and transparency, which involves providing clear access to how public data is used and protected; equal access, which ensures that all citizens have equal access to technology-based government services; and integrity and

accountability, which involve using technology in a way that supports transparency and accountability in governance.

e. Media and Information Sector

Challenges faced in this sector include information dissemination, which involves dealing with hoaxes, fake news, and misinformation; copyright and content, which involves managing copyright and the proper use of digital content; and the influence of social media, which involves managing the impact of social media algorithms on public opinion.

The ethics that must be applied include fact-checking, which involves ensuring the accuracy and truthfulness of information before it is published or disseminated; copyright compliance, which involves respecting copyright and digital content licenses; and social responsibility, which involves using social media in a positive and constructive way, as well as proactively addressing negative impacts.

The ethics of technology use across various sectors involve applying principles of integrity, privacy, fairness, and security. By understanding the specific challenges in each sector and applying appropriate ethical principles, technology can be used to support positive goals and improve the quality of life in various fields. The application of these ethics ensures that technology provides maximum benefits while minimizing risks and potential negative impacts.

8. Fatwa and Ulama's Guide to Technology

Fatwas and guidelines from Islamic scholars on technology provide a legal and ethical framework from an Islamic perspective to guide the use of technology in accordance with Sharia principles. In the face of rapid technological advancements, scholars strive to issue fatwas and guidelines that are relevant to the modern context. Here are some aspects commonly discussed in fatwas and guidelines from Islamic scholars regarding technology:

a. Fatwas on the Use of Technology

1) Social Media and the Internet:

a) Positive Content: Scholars emphasize the importance of using social media and the internet to spread goodness, knowledge, and beneficial information while avoiding the dissemination of negative content, slander, or false information.

b) Ethics of Interaction: The use of social media should follow Islamic ethics, which include speaking politely, respecting others' privacy, and not engaging in harmful or degrading debates.

2) Financial Technology (Fintech):

- a) Riba (Interest): Fatwas often examine whether financial technologies, such as online loans or investment products, comply with Sharia principles, particularly regarding riba (interest). Financial products must be free from riba and excessive speculation.
- b) Halal Transactions: Evaluating the compliance of digital transactions with Islamic law, such as ensuring that transactions are conducted fairly and transparently.

3) Health Technology:

- a) Use of Medical Devices: Fatwas regarding the use of medical technology must ensure that the technology aligns with Islamic principles, including ethical treatment of patients and the safe use of technology.
- b) Treatment and Therapy: Examining the permissibility and ethics of using new technologies in medical treatments, such as gene therapy or cloning, considering the impact on humans and Sharia principles.

b. Scholarly Guidelines on Technology Ethics

1) Amanah (Trust):

- a) Data Security: Scholarly guidelines emphasize the need to protect personal data and sensitive information, as well as transparency in data usage.
- b) Responsibility: Upholding integrity and honesty in the use of technology, including refraining from engaging in fraud or deceit.

c. Adil (Justice):

- 1) Equal Access: Ensuring that technology does not exacerbate social inequality and that access to technology is provided fairly to all parties.
- 2) Non-Discrimination: Avoiding the use of technology in a way that discriminates against or harms certain groups.

d. Ihsan (Benevolence):

- 1) Collective Good: Technology should be used to provide benefits and welfare to society as a whole, such as in the fields of education, health, and social well-being.
- 2) Social Responsibility: Developing and using technology while considering its impact on society and the environment.

e. Maslahah (Public Welfare):

- 1) General Benefit: Technology should be developed and applied with the aim of enhancing public welfare and advancing societal well-being.
- 2) Sharia Considerations: Fatwas and scholarly guidelines assess whether technological innovations meet the requirements of public welfare (maslahah) and do not contradict Sharia principles. (Sugiyanto et al. 2020)

Examples of Fatwas Related to Technology

- a. Fatwas on Cryptocurrency: Some scholars have issued fatwas regarding the permissibility or prohibition of cryptocurrency based on analyses of Sharia principles related to speculation, interest (riba), and transparency.
- b. Fatwas on the Use of Social Media: Fatwas regulate the ethics of interacting on social media, including prohibitions against spreading slander or fake news, and encourage the use of social media for positive purposes.
- c. Fatwas on Educational Technology: Guidelines on the use of technology in education, such as e-learning and educational applications, to ensure that technology is used ethically and beneficially.

Fatwas and scholarly guidelines regarding technology serve to ensure that technological developments remain aligned with Islamic principles. This includes the ethical use of technology, avoiding practices that are not compliant with Sharia, and promoting goodness and justice through technology. Thus, Muslims can fully benefit from technology without compromising their religious values.

Conclusion

Ethics is a discipline that evaluates human actions based on reason and philosophy, distinct from morals and morality, which are grounded in social norms and religion. In the context of technology, Islamic principles such as amanah (trust), adil (justice), ihsan (benevolence), and maslahah (public interest) serve as the ethical foundation to ensure that technology is used fairly, beneficially, and in alignment with Shariah. The application of ethical principles in technology across various sectors is essential to guarantee its proper use, and religious rulings (fatwas) by scholars provide guidance that aligns with Islamic ethical principles.

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