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The Concept of Al-Thawābit and Al-Mutaghayyirāt in Technological Innovation According to Maqāṣid al-Sharīʿah

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Abstract

The rapid advancement of modern technology, particularly in the context of the Fourth Industrial Revolution (IR 4.0), presents Muslims with a range of complex challenges, including ethical dilemmas and questions regarding the social impact of innovations such as artificial intelligence, biotechnology and digital media. These challenges are significant as they impact daily life and raise profound concerns about the preservation of religious values, identity and social order. While technological progress offers undeniable benefits, it also generates indirect risks that may be overlooked if assessed solely from a utilitarian or secular perspective. Against this backdrop, Islamic law, guided by the higher objectives of maqāṣid al-sharī`ah provides a principled and comprehensive framework for evaluating technological innovation, ensuring that developments remain aligned with core Islamic moral and ethical standards and ultimately promote human well-being in a holistic sense. Central to this approach are the concepts of al-thawābit (the immutable) and al-mutaghayyirāt (the changeable) which serve as critical tools for adapting Islamic legal rulings to new technological realities. This article adopts a library research and content analysis methodology to examine existing literature and provide a comprehensive understanding of Shariah's

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role, specifically through the lens of maqāṣid al-sharī`ah in regulating technological advancements. The study concludes that although technology constitutes part of al-mutaghayyirāt and continues to evolve, the immutable principles of maqāṣid al-sharī`ah serve as an essential safeguard to ensure that technological change continues to advance the holistic well-being of humanity. In sum, the maqāṣid al-sharī`ah framework provides the critical criteria for balancing benefits and harms, ensuring that technological advancement ultimately serves the comprehensive well-being and public interest (maṣlaḥah) of humanity.

Keywords: *al-mutaghayyirāt; al-thawābit; maqāṣid al-Sharī`ah; maṣlaḥah; modern technology*

INTRODUCTION

The current technological advancement represents a positive interaction between humans and their environment. Beginning in 1784 (IR 1.0), 1870 (IR 2.0), 1969 (IR 3.0), and continuing to today, the world has reached the stage of IR 4.0, where technology in this era is connected to a global database (Petrillo et al., 2018) and some of it is integrated with humans (Shahirah, 2022). IR 1.0 involved the invention of the steam engine, IR 2.0 the generation of electric power, IR 3.0 the creation of computers, and IR 4.0 is a continuation of the IR 3.0 era occurring more smartly and flexibly with the term Internet of Things (IoT).

The IR 4.0 era significantly benefits human life, particularly in economic growth, job opportunities, fostering innovative graduates and creating a better and more modern life (Azmi, 2020; Ilori & Ajagunna, 2020; Oke & Fernandes, 2020). However, the advent of IR 4.0 also brings about certain negative effects when viewed from the readiness of skilled labor, the confidentiality of personal information and the readiness of the education system (Al-Maskari et al., 2022; Bikse et al., 2022; Teng et al., 2019), including the Islamic education system (Akrim, 2022; Zubairi & Nurdin, 2022). Furthermore, the challenges of IR 4.0 also raise legal questions among Muslims, such as

the application of the game Pokemon Go (Pejabat Mufti Wilayah Persekutuan, 2016). Additionally, some technologies contradict the natural creation of humans. For example, the marriage between humans and robots is reported to have occurred in China (Haas, 2017; Huang, 2017).

This technology is continuously advancing with the use of various artificial intelligence applications capable of replacing human roles according to their programming codes. This technology can benefit and facilitate human affairs, significantly saving time and energy costs. Islam welcomes any technological innovation occurring in the IR 4.0 era based on the guidance of Hadith and general principles. For instance, a Hadith narrates about Prophet Muhammad (PBUH) recognizing the technology of tree grafting.

عن رافع بن خديج رضي الله عنه قال: (قدِم رسول الله صلى الله عليه وسلم المدينة وهم يأبرون النخل (يُلقِّحون النخلَ) فقال :ما تصنعون؟ قالوا: كنا نصنعه، قال:لعلكم لو لم تفعلوا كان خيرا، فتركوه فنفضت، فذكروا ذلك له فقال:إنما أنا بشر إذا أمرتكم بشئ من دينكم فخذوا به، وإذا أمرتكم بشئ من رأى فإنما أنا بشر)

> Translation: *On the authority of Rafi' ibn Khadij RA, who said: The Messenger of Allah SAW arrived in Madinah while its people were artificially pollinating their date palms. He asked, "What are you doing?" They replied, "We have always done this." The Prophet said, "Perhaps it would be better if you did not do it." So they abandoned the practice, and the yield diminished. They mentioned this to him, and he said, "I am but a human being. If I command you regarding your religion, then accept it; but if I give you my personal opinion, then I am merely a human being."*

The presented hadith encapsulates Islam's adaptive stance towards worldly innovations, emphasizing its dynamic nature. Moreover, the general principles all point to the same conclusion, including the principle of *al-aslu fī al-ashyā' al-ibāhah* (the original ruling of all things is permissibility). Although modern technology

and artificial intelligence applications provide various benefits and advantages, their uncontrolled development also has the potential to trigger negative implications. The capability of AI applications to adapt to human thinking skills must be systematically managed to prevent harm to the environment and humanity (Jarrahi, 2018; Korteling et al., 2021; Mhlanga, 2022).

Thus, the issues pertaining to Islamic ruling that arose in the IR 4.0 era due to various technological innovations need to be addressed. This does not imply that we should not make an effort to embrace these technologies. It should be stressed that Islamic law is adaptable and suitable for practice in any era. Therefore, a general framework of *al-thawābit* and *al-mutaghayyirāt* for addressing legal issues related to technology in the IR 4.0 era should be provided to ensure the realization of *maṣlaḥah* while avoiding harm. Several studies on *al-thawābit* and *al-mutaghayyirāt* attempt to develop fixed and variable aspects of Islamic Shariah discourse in certain areas. For example, studies titled *Al-Thawābit wa al-Mutaghayyirāt fī Qadāyā al-Mar'ah al-Mu'āsirah fī Daw' al-Sunnah al-Nabawiyyah, al-Thawābit wa al-Mutaghayyirāt fī Masīrah al-'Amal al-Islāmī al-Mu'āsir, al-Thawābit wa al-Mutaghayyirāt fī Tashrī' al-Awrād wa al-Azkar, al-Thawābit wa al-Mutaghayyirāt fī al-Tārīkh al-Iqtiṣādī li al-Bilād al-Islāmiyyah, wa al-Thawābit wa al-Mutaghayyirāt fī al-Aḥkām al-Fiqhiyyah al-Muta'alliqa bi-Mar'ah fī Majāl al-Aḥwāl al-Shakṣiyyah*. These studies demonstrate that the concepts of *al-thawābit* and *al-mutaghayyirāt* in Shariah remain relevant and require periodic refinement. While several studies have explored *al-thawābit* and *al-mutaghayyirāt*, comprehensive discussions concerning their application in the era of IR 4.0 particularly in regulating technological innovation remain unexplored. This underscores the necessity for further research to ensure that Islamic law is implemented in a manner that is both relevant and contextual to contemporary challenges.

Based on that, the objectives outlined in this article are also relevant, namely to explain the concepts of *al-thawābit* and *al-mutaghayyirāt* in the field of modern technology from the perspective of *maqāṣid al-sharī`ah*. From the literature reviewed, it can be observed that there is still no comprehensive discussion on *al-thawābit* and *al-mutaghayyirāt* in this aspect. Meanwhile, various legal conflicts arising today result from technology's rapid and complex development.

ISLAMIC LEGAL ISSUES IN THE TECHNOLOGICAL REVOLUTION: A REVIEW

Technological advancements have created benefits for humanity, even though they also bring certain drawbacks or harms (*mafsadah*). This situation aligns with the inherent nature of *maṣlaḥah* (benefit) and *mafsadah* (harm), as both are almost inseparable. This has been emphasized by al-Raysunī (2014):

المصالح والمفاسد في الواقع المعيش لا تكاد توجد متمحضة ومنفصلة بعضها عن بعض

Translation: *The entirety of maṣāliḥ (benefits) and mafāsid (harms) in human life are almost inseparable from each other.*

From this assertion, it is clear that benefits and harms are two conditions that coexist and are almost inseparable in all fields. Thus, the technology field in the IR 4.0 era also faces the same reality. Therefore, every innovation needs to be evaluated from the perspective of Islamic ethics and law to ensure it aligns with the objectives of shari'ah. For instance, the evolution of social media has resulted in the emergence of various applications, some of which have given rise to ethical and Islamic legal concerns. Comparable questions have also arisen in the development of modern medical technologies. A number of these matters have been addressed through fatwas and local legal opinions. Notably, the considerations afforded to issues relating to such technological applications are firmly rooted in the assessment of public interest *(maṣlaḥah)* in accordance with religious

principles. A concise summary of these rulings is presented in Table 1.

Table 1.

Fatwas on Some Current Issues Related to Technological Applications

Issue	Fatwa
Pokemon Go	Playing Pokémon Go and similar games is prohibited (haram) for Muslims, as these activities contain elements of harm, negligence, and time wastage and can result in personal safety risks as well as the misuse of personal data (Pejabat Mufti Wilayah Persekutuan, 2016).
FaceApp Aplication	The use of the FaceApp application to alter one's face, gender, or age digitally is strictly forbidden and considered haram, as it constitutes deception of one's natural disposition (fitrah) and identity and may lead to slander and the dissemination of false or misleading images (Pejabat Mufti Wilayah Persekutuan, 2020c).
Lathi Challenge Dance	The Lathi Challenge contains elements of ritual invocation and imitation of cultural practices that contravene Islamic beliefs, potentially leading participants towards polytheism (shirk) and disbelief (kufr) (Pejabat Mufti Wilayah Persekutuan, 2020b).
Rulling on TikTok	The legal ruling on using the TikTok application depends on the nature of its content. Should the content involve prohibited elements such as exposing the 'awrah (parts of the body that should be covered), lewd dancing, acts of polytheism, or other prohibited acts, it is deemed haram. However, if the platform is used in a manner consistent with Islamic etiquette and for beneficial purposes, its use is permitted (Pejabat Mufti Wilayah Persekutuan, 2020a).
Sperm Banks	The Muzakarah Fatwa Committee of the National Council for Islamic Religious Affairs Malaysia (JAKIM) has decreed that the establishment and use of sperm banks are haram (prohibited) except for sperm obtained from a legally married husband for his wife, and even then, only if all shariah guidelines

Issue	Fatwa
	are strictly followed. Any mixing of sperm or confusion of lineage is strictly forbidden (Pejabat Mufti Wilayah Persekutuan, 2018).
Milk Banks	The Muzakarah Fatwa Committee (JAKIM) decided in 2005 and reaffirmed in subsequent fatwas that milk banks, as practised in the West, are not permissible (haram) in Malaysia due to the complications of nasab (lineage), mahram relationships, and the inability to determine clear breastfeeding ties (Pejabat Mufti Wilayah Persekutuan, 2017).

Source: Secondary data. Authors' compilation.

In addition to these fatwas, there are more recent issues relating to the development of medical technologies. Among them, 3D organ printing (3R) (Baharuddin et al., 2014; Mariat et al., 2024; Ramli et al., 2022; Sabri et al., 2023), cloning technologies like Gene Drive used to control specific animal populations (Amalia & Hilmi, 2024; Isa, 2023; Manshadi & Nadoushan, 2018), the creation of nanobots (a type of small-scale robot used for medical purposes by injecting them into human blood vessels, capable of slowing down the aging process) (Al-Burʿī, 2022; Alfulij et al., 2024; Al-Muṭlaq, 2023; ʿUmar, 2025), the production of artificial wombs as an alternative for women with natural womb complications (Al-Athamneh & Al-Rifai, 2025; Muhsin et al., 2024) and artificial insemination methods to address fertility issues (Kholilulloh et al., 2023; Mohamed, 2024; Nasution, 2023; Shabana, 2021). In summary, ethical issues arising from medical technologies, as well as other emerging innovations, will continue to proliferate over time and will necessitate ongoing Islamic legal guidance grounded in religious principles.

Upon closer examination, in an era of technology-driven by Cyber-Physical Systems (CPS), the development of robotics has become a crucial factor contributing to productivity growth. Robots now coexist with humans either virtually or physically. Even

humanoid robots have human-like features and can perform tasks traditionally done by humans (Harith Idris & Ramli, 2020; Yunos et al., 2024). As a result, the interaction process between humans and robots indirectly impacts social, ethical, and legal aspects. Among the issues is the creation and sale of *sexbot* (sexbots) to the public. A *sexbot* is a humanoid robot designed to provide sexual services to humans, possessing physical characteristics, attributes, cognitive abilities, and expressions similar to humans. It can respond to human inquiries due to programming, mainly through AI technology and functions almost like a human, especially in fulfilling some individuals' sexual desires. Several manufacturers are capitalizing on technological advancements to compete in producing sexbot models capable of providing human-like sexual services. In 2022, RealDoll released five sexbot models for the market: Harmony, Solana, Serenity, Tanya, and Nova (Masterson, 2022).

Simultaneously, international studies, particularly in the West, are exploring the positive uses of sexbots, such as their benefits to society. For example, a field study by Mareckova found that some consider sexbots as an alternative treatment or therapy in healthcare, specifically for addressing Paraphilic Disorder (Marečková et al., 2022). Paraphilic Disorder refers to fantasies, sexual urges, or behaviors that are recurrent and arousing and involve non-living objects, children, or non-consenting adults (Pang et al., 2023). Thus, sexbots are seen as an alternative for preventing crimes by individuals with such disorders. Moreover, the ongoing assimilation process between humans and robots does not rule out the possibility that sexbots could become a legal alternative in specific situations, such as when a wife cannot fulfill her husband's desires. According to Malinowski (2020), in the post-human love era, sexual software becomes a solution for individuals facing loneliness, busy schedules,

troubled relationships, disabilities and the elderly, and even acts as an antidote to depression.

Although Western studies highlight the health benefits of these robots, they contradict Islamic law, which permits sexual relations only between a married man and a woman. Furthermore, deliberately ejaculating (*al-istimnā'*) using one's body parts or other means outside of marital intercourse is prohibited (Al-Haytami, 1983). Therefore, the widespread sale of sexbots is seen as an effort to normalize immoral behavior, exposing society to fornication and frivolity.

Additionally, another current application involves AI robots or machines capable of imitating conversation, understanding questions, and providing human-like answers. On January 30, 2023, OpenAI officially launched the Chat Generative Pre-trained Transformer (ChatGPT) to the public (Roumeliotis & Tselikas, 2023). ChatGPT is an intelligent conversational robot capable of detailed responses based on user prompts (Wu et al., 2023). The development of this application aims to create a robot that understands human language, imitates conversation styles and responds based on large-scale data obtained through Generative AI and Language Learning Model (LLM) technology (Nazir & Wang, 2023). Industries using ChatGPT include business, education, healthcare and others. This application helps students, educators, researchers and professionals enhance knowledge, improve skills, and complete academic tasks (Kasneci et al., 2023). ChatGPT offers services to gather information based on user queries and provide summarized answers. In addition, it facilitates the completion of written tasks and aids researchers in crafting impactful papers. However, its widespread use without control raises ethical issues, such as inaccurate information dissemination, increased plagiarism, cheating in exams and copying others' work (Pasca & Arcese, 2025). It also enables students to efficiently complete academic tasks by asking ChatGPT and copying its responses. However, these

responses are meant to provide an initial or general overview of an issue, requiring researchers to refer to more reliable sources for a professional and genuine analysis.

In explaining the ruling on using ChatGPT for students' research tasks, General Ifta' Department of Jordan (2023) issued a fatwa stating that the ruling is based on the concept of genuine effort (الجهد المبذول المقصود) in Islam. They clarified that it is haram to deceive examiners by claiming the work is one's while using ChatGPT because it contradicts the concept of genuine effort, which involves using one's intellect given by Allah SWT. However, using ChatGPT for technical tasks like data collection, statistics and language review is permitted as it strengthens research and enhances originality.

Despite this, the application of IR 4.0 technology has an impacts on consumer aspects. Some misuse advanced technology for activities contrary to shari'ah and local laws. According to the National Anti-Drug Agency (AADK), AI, IoT, Big Data, and 3D printing are now misused to produce drugs on a large scale and provide widespread access to people with an addiction via phone calls (Bahaudin, 2024). This seriously impacts the health sector by increasing drug addiction rates, adding more people with an addiction, and affecting national welfare. Moreover, the increase in drug-related problems is linked to higher crime rates. Islam prohibits the use of drugs due to their addictive nature, ability to impair mental function and tendency to cause irrational thinking.

It must be emphasized that these issues are among the various conflicts that arise in the technological era, particularly in IR 4.0. On the other hand, humans greatly need technological innovations to lead increasingly modern lives, implying that there are benefits (*maṣlaḥah*) that come with technological innovation. However, harms (*mafsadah*) also accompany the advancements achieved. For instance, medical technology related to the establishment of sperm banks aims to

address the problems faced by married couples. Nevertheless, this technology also paves the way for disrupting the lineage system, which is highly valued in Islam. Hence, any technological innovation requires in-depth assessment. A simplistic approach whereby every new technology is permitted on the basis of *taghayyur al-ahkām bi taghayyuri al-azminah wa al-amkinah* (the change of rulings with the change of time and place) and *al-asl fī al-ashyā' al-ibāhah* (the original rule concerning things is permissibility) may in fact cause significant harm *(mafsadah)* to the Muslim community (Aziz, 2021; Harun et al., 2022; Muhlisah & Yusdani, 2023). Conversely, the emerging issues must be examined with careful attention to relevant aspects, especially *fiqh al-ma'ālāt,* so as to ensure the preservation of the five *maqāṣid al-sharī`ah* and avoid their loss *(jānib al-'adam).* This reality presents a substantial challenge in the process of legal derivation *(istinbāt)* in the IR 4.0 era. Therefore, the discussion of *al-thawābit* (fixed principles) and *al-mutaghayyirāt* (changing elements) in addressing contemporary technological innovation based on the framework of *maqāṣid al-sharī`ah* needs to be elucidated as a general guideline and reference point.

METHOD

This paper adopts a qualitative literature review approach, specifically utilizing the narrative review method. Through this methodology, the paper synthesizes and critically examines the concepts of *al-thawābit* and *al-mutaghayyirāt* in the context of technological innovation from the perspective of *maqāṣid al-sharī`ah.* The narrative review draws upon a diverse range of sources, including classical Islamic jurisprudence texts, contemporary scholarly works, official fatwas, and relevant academic literature on technology and ethics. This approach enables a comprehensive mapping and integration of existing scholarship, the identification of interpretive trends, and the highlighting of unresolved issues and research gaps.

More specifically, a library research method is employed to examine previous studies and literature that address these matters, including fatwa institutions as well as academic works. The library method is used to explain the concepts of *al-thawābit* and *al-mutaghayyirāt*, which are applied throughout the study. The researcher reviews discussions on both concepts through classical Islamic texts (*kitab turath*) and contemporary scholarly works. Subsequently, an inductive content analysis is conducted to synthesize definitions and conceptual understanding. In other words, the process of explaining these concepts establishes the definitions adopted in this study. The subsequent analysis employs inductive, deductive, and comparative methods to examine the application of *al-thawābit* and *al-mutaghayyirāt* in technological innovation.

RESULTS AND DISCUSSION

Al-Thawābit and Al-Mutaghayyirāt Concept

Al-thawābit and *al-mutaghayyirāt* are crucial topics in the discourse of Shariah law. This is evident when these terms are used in discussions such as ijtihad to address issues of Islamic law. For instance, Al-Qaraḍāwī describes *al-thawābit* as a closed scope *(al-dāirah al-mughlaqah)* to any effort of ijtihad and *tajdīd* in the development of Islamic law due to its *qaṭ'ī* (definitive) evidence (Al-Qaraḍāwī, 2012; Al-Sāwī, 2009). In contrast, *al-mutaghayyirāt* refers to a more flexible scope of discussion, allowing for changes over time. In this context, *al-mutaghayyirāt* can be considered as *al-dāirah al-maftūḥah*, as it provides space for ijtihad and *tajdīd*.

These two terms must be explained from both etymological and terminological perspectives for greater clarity. Etymologically, *al-thawābit* is the plural of *thābit*, which means fixed and firm. Terminologically, several aspects can be highlighted. From the perspective of thought, *al-thawābit* often refers to all matters found in

turāth as religious texts for legislation reference (Abū Mu'nas, 2004). In the context of Shariah law, *al-thawābit* refers to a set of authentic laws that do not accept any form of change, whether in the scope of worship, morality, or creed, even in circumstances where there appears to be a temporal benefit (Al-Khādimi, 2005). This means that *al-thawābit* comprises a set of laws established through *qaṭ'ī* (definitive) evidence in terms of both text and meaning, agreed upon by the scholars ('Alī, 2006; Al-Qaraḍāwī, 2011). Conversely, the etymology of *al-mutaghayyirāt* refers to something that changes, alters and does not remain constant. Terminologically, this term refers to a set of laws that change over time and individuals to realize the *maqāṣid al-sharī`ah*, the general principles of Shariah, customs, traditions, and human needs (Al-Khādimi, 2005).

Based on the definitions provided, the essence of *al-thawābit* consists of agreed-upon laws and principles. More specifically, the concept of *al-thawābit* refers to the body of immutable and universally recognized principles within the Islamic legal tradition. These encompass fundamental beliefs, obligatory religious practices, essential moral values, and explicit prohibitions established by clear *(qaṭ'ī)* textual evidence and scholarly consensus. Because these principles are not subject to change over time or circumstance, they serve as a stable ethical and legal foundation. In the context of rapid technological innovation particularly in the IR 4.0 era, marked by the emergence of AI, IoT, and digital transformation *al-thawābit* provides crucial benchmarks for evaluating and governing technological developments. Any new technology or innovation must therefore be assessed against these fixed principles to ensure that it does not contravene the core objectives of the shari'ah *(maqāṣid al-sharī`ah)*. In this sense, *al-thawābit* serves as a foundational basis for the laws that oversee technological innovation in the era of IR 4.0. For clarity, the article briefly outlines the essence of *al-thawābit* laws as follows:

a. The fundamental beliefs mentioned in the texts include faith in Allah SWT, His angels, His books, the messengers sent by Allah SWT, the Day of Judgment, and belief in *qadā'* (divine decree) and *qadr* (divine predestination).

b. The practical pillars of Islam include declaring *shahādah*, praying, paying zakat, fasting in Ramadan, and performing the Hajj.

c. Core moral values include justice, benevolence, fulfilling rights, truthfulness, trustworthiness, mercy, patience, gratitude, and modesty.

d. Actions unequivocally prohibited, such as murder, adultery, gender alteration, alcohol consumption, gambling, theft, anger, witchcraft, usury (*riba'*), consuming the property of orphans, *qazf*, watching immorality, disobedience to parents, severing kinship ties, gossiping, lying, and hostility towards groups that should not be opposed.

e. Internally prohibited acts, such as arrogance (*takabbur*), extremism, envy, stinginess, ostentation (*riya`*), vanity (*`ujub*), worldly love, and following desires (*hawa nafsu*).

f. Shariah laws established through *qaṭ'ī* (definitive) evidence (Zaydan, 2006) in areas such as food and drink, clothing and adornment, trade, financial transactions, marriage, divorce, bequests, inheritance, and punishments like *ḥudūd* and *qiṣāṣ* (Al-Qaraḍāwī, 2012).

Although *al-mutaghayyirāt* revolves around the discussion of changing laws, the process of ijtihad must align with certain principles. This means that the ijtihad conducted must uphold the fixed principles (*al-thawābit*) such as:

a. The practiced ijtihad does not contradict the *maqāṣid al-sharī`ah*

b. The resulting ijtihad law does not contradict *qaṭ'ī* (definitive) texts
c. The resulting ijtihad law does not contradict consensus (*ijmā'*)
d. The resulting ijtihad law does not contradict *qiyās* (Muwasi, 2011)
e. Preserving cultural changes and customs
f. Legal changes due to unforeseen emergencies
g. Legal changes due to changes in nature or name
h. Legal changes are limited to tools and means (Al-Ṣāʿidī, 2009)

The concepts of *al-thawābit* and *al-mutaghayyirāt* are are complementary to each other in which the process of ijtihad in any case must preserve the fixed principles (*thābit*). This is emphasized by research, stating that both terms are interdependent. Based on the explained concepts of *al-thawābit* and *al-mutaghayyirāt*, it can be concluded that these terms are used to categorize laws as either fixed or not. Considering this, the terms *al-thawābit* and *al-mutaghayyirāt* used in this paper are not intended to classify the laws of any specific technology into those categories. Instead, these terms are used in their etymological sense, meaning fixed and changing. Based on this linguistic premise, the discussion on fixed and changing principles in evaluating technological development and its applications within the framework of *maqāṣid al-sharī`ah* is presented.

Al-Thawābit and *Al-Mutaghayyirāt* in Technological Innovation From The Perspective of *Maqāṣid Al-Sharī`Ah*

Before delving into the discussion of *al-thawābit* and *al-mutaghayyirāt* in the context of technology, it is essential to clarify the position of technology in Islamic law. Shariah can generally be classified into two categories: matters related to *ibadat* and *muamalat*.

Based on this premise, technology is a crucial component of *Islamic muamalat*, encompassing a broad scope. Therefore, the fundamental ruling on technological development follows the original ruling in the field of *muamalat*, meaning the basic principle of technology development is permissibility. This is following the principle الأصل في العبادات الحظر أو التوقف والأصل في العادات الإباحة (the default rule in *ibadat* is *haram* or *tawaquf*, while the default rule in customs is permissibility (*harus*).

For instance, the principle of *al-thawābit* is reflected in the prohibition of any technological application that contradicts *qaṭ'ī* (definitive) Islamic rulings, such as the development of platforms promoting usury (*riba*), gambling, or explicit immorality, all of which are categorically forbidden regardless of technological advancement. On the other hand, *al-mutaghayyirāt* accommodates the use of evolving technologies such as online banking, e-commerce or digital education platforms. These innovations are permissible and even encouraged as long as their operations and content adhere to Shariah guidelines, such as transparency, justice and avoidance of prohibited elements. Another example also can be found in the field of biomedical technology. The use of mobile health applications (*mHealth*) to monitor personal well-being is generally permissible *(al-mutaghayyirāt)*, provided that user privacy is protected and the content does not violate Shariah boundaries *(al-thawābit)*.

Human life is dynamic and continually evolves with time. Thus, the principles emphasized by Islam through *al-thawābit* and *al-mutaghayyirāt* reflect the flexibility and universality of Islam in facing various contemporary changes. These changes occur in every aspect of life, such as:

a. Technology: The development and advancement of modern technology in information, telecommunications, transportation, and energy use not only changes lifestyles but

also opens opportunities for innovations and product and service expansion (Nugroho, 2021).

b. Globalization**:** Globalization intensively connects diverse human backgrounds through a single network, encompassing information, trade, migration, foreign relations, and economic cooperation (Nugroho, 2021).

c. Urbanization**:** Improved living standards and infrastructure in urban areas have led to migration for better job opportunities, education, and financial stability. This indirectly leads to new and dynamic lifestyles (Zakiyah et al., 2022).

In other words, the technology developed daily is fundamentally permissible according to Islamic law. Technology is considered a means *(wasīlah)* that can evolve with changing times in the era of IR 4.0. In this context, technology embodies the concept of *al-mutaghayyirāt*, signifying its capacity for change rather than a fixed state. However, innovation in this field is subject to *al-thawābit* or established principles agreed upon in *muamalat*.

Therefore, among the essential principles that must be upheld in the field of *muamalat* are the fundamental principles of *muamalat* and general moral guidelines, such as establishing justice, *syura*, trustworthiness, promoting good, preventing evil, and fulfilling promises as mentioned in every nation and religion. These principles are fixed and must be addressed for the sake of contemporary *maṣlaḥah* (Al-Khādimi, 2005). This is because these principles are supported by various texts and aligned with sound reason and a healthy soul (Al-Khādimi, 2005). Although these principles are broad, they do not specifically address technological development and application. As emphasized, even though the basic principle of technological development is permissibility, it must conform to the *al-thawābit* (fixed principles) and rules. This is because people often misuse technology despite its creation having noble objectives. Some technologies, such

as artificial intelligence, may even conflict with the objectives of Shariah. Therefore, the highest dimension must be preserved: the genuine benefits (*maṣlaḥah*) that align with the *maqāṣid al-sharī`ah*.

This ensures that the innovations align with the *maṣlaḥah* as Shariah desires. In this context, these innovations can be categorized within the scope of *maṣlaḥah mursalah*, which means they do not have textual support either affirming or negating them (Al-Raysunī, 2014). Thus, they must align with the objectives of Shariah. As emphasized by Al-Ghazālī (2010):

ومقصود الشرع من الخلق خمسة وهو أن يحفظ عليهم دينهم، ونفسهم، وعقلهم ونسلهم ومالهم، فكل مايتضمن حفظ هذه الأصول الخمسة فهو مصلحة، وكل ما يفوت هذه الأصول فهو مفسدة ودفعها مصلحة

> Translation: *The objective of Shariah in life encompasses five aspects: preserving religion, life, intellect, lineage, and property. Any action that ensures the preservation of these five principles is considered a maṣlaḥah, and any action that undermines these five principles is a mafsadah, and preventing it is a maṣlaḥah.*

From this statement, it is clear that the alignment between the direction of *maṣlaḥah* in developing technology and the fixed nature of *maqāṣid al-sharī`ah* is essential.

This reality needs to be highlighted because technology is a constantly evolving field. When viewed from the perspective of Islamic law, it closely resembles the concept of *al-`urf*, which is always subject to change due to contemporary needs. In other words, innovation is necessary to create benefits for society at every age. For example, the advancement of mobile phones today, considered by some as miniature computers, facilitates daily tasks in communication for various purposes.

More specifically, the *al-thawābit* that must be preserved in technological development to face IR 4.0 include:

The objective of technology creation (maqṣad al-mukallaf) must align with the objective of al-shāri' (maqṣad al-shāri')

The alignment between *maqṣad al-mukallaf* and *maqṣad al-shāri'* is a Shariah provision that cannot be changed. The *maqṣad al-shāri'* is the objective intended by Allah SWT in every Shariah legislation. According to Al-Shāṭibī (1997), the objective of *al-shāri'* consists of *al-al-ḍarūriyyāt, al-ḥājiyyāt,* and *al-taḥsīniyyāt* which include *al-kulliyyāt al-khams*. The *maqṣad al-mukallaf* is the objective or purpose behind the actions of the *mukallaf*. Essentially, the objective of the *mukallaf* must align with and lead to the *maqṣad al-shāri'* as determined by Allah SWT. This ensures the attainment of true *maṣlaḥah* through technology. In other words, when the purpose of technology design and the objective of Shariah align with each other it guarantees the *maṣlaḥah* for humanity. Therefore, even if the *mukallaf's* objective is oriented towards *maṣlaḥah*, it has no value if it contradicts the *maqṣad al-shāri'*.

In examining the objectives of technological innovations developed by humans and their applications, the alignment between the two *maqṣad* must be established. A divergence between these objectives invites the wrath of Allah SWT. Allah SWT emphasizes this in His verse:

فَأَمَّا مَن طَغَىٰ ٣٧ وَءَاثَرَ ٱلْحَيَوٰةَ ٱلدُّنْيَا ٣٨ فَإِنَّ ٱلْجَحِيمَ هِيَ ٱلْمَأْوَىٰ ٣٩

> Translation: *So as for he who transgressed, and preferred the life of this world, then indeed Hellfire will be [his] refuge.* (al-Naziat: 37-39)

The verse explains the group of people who exceed their limits in their actions by engaging in matters beyond what Allah SWT commands and desires. A pertinent example of this principle is human cloning

technology. In this regard, human cloning is wholly forbidden based on several considerations:

a. Allah SWT has absolute rights over humans (Nasr-Esfahani et al., 2021).
b. It harms the lineage system, which is significantly protected in *ḥifẓ al-nasb* (Jamaa, 2016).
c. It contradicts Allah SWT's unique and wise creation (Sadeghi, 2007).
d. It is carried out through means not prescribed by Shariah (Alathamneh, 2025).

The main point in this example is that modern biotechnological innovation leads humans to usurp Allah SWT's right to create and bring forth human beings. Moreover, in this issue, it is clearly against Allah SWT's command *(al-awāmir)* for humans to live in pairs through the sanctioned system of marriage to continue human generations (*al-tanāsul*). Unfortunately, such biotechnologies open the door to complex moral and ethical problems and invite the wrath of Allah SWT as the Creator. This premise can also be applied to current medical technology development issues, such as cryonics, to save lives and extend lifespan (Sauchelli, 2024; Swan, 2019). The concerning matter is if these two objectives are not aligned in technological development for the sake of scientific and technological advancement, might there be a time when people question "Where is God?" because all human desires, ambitions, ideas, and inspirations can be achieved even if they fundamentally clash with the *maqṣad al-shāri'*. Thus, reverting to the first principle of technological development, it is emphasized that there must be harmony between *maqṣad al-shāri'* and *maqṣad al-mukallaf*.

Technological innovation aims at the preservation of maqāṣid al-sharī`ah (al-kulliyyāt al-khams wa al-maqāṣid al-'āmmah)

As mentioned, technology is the essence of *al-mutaghayyirāt*, which changes with time. However, every creation in this field must aim to preserve *maqāṣid al-sharī`ah*. In the other word, technology, as an ever-evolving field, embodies the concept of *al-mutaghayyirāt* constantly adapting to new developments and human needs. However, each technological innovation should be evaluated to ensure its alignment with the immutable principles of *al-thawābit,* so that its application supports, rather than undermines, the core objectives of the shariah. This means that every advancement in this field must ensure the objectives of Shariah. Detailing the preservation of *maqāṣid al-sharī`ah* through technology requires a systematic arrangement:

a. Assurance of *al-dīn* (religion) in both existence (*wujūd*) and non-existence (*'adam*)
b. Assurance of *al-nafs* (life) in existence and *'adam*
c. Assurance of *al-'aql* (intellect) in existence and *'adam*
d. Assurance of *al-nasb* (lineage) in existence and *'adam*
e. Assurance of *al-māl* (property/wealth) in existence and *'adam*
f. Assurance of public interest *(maṣlaḥah al-'āmmah)* over specific interest *(maṣlaḥah al-khāṣṣah)*
g. Assurance of definitive benefit *(maṣlaḥah qaṭ'iyyah)* over speculative benefit *(maṣlaḥah mawhūmah)*

This arrangement is essentially a summary of the discussions of Al-Ghazālī, 'Izz al-Dīn 'Abd al-Salām, Al-Shāṭibī, Al-Qaraḍāwī and Al-Būṭī in outlining the priority of interests when there is a conflict between *maṣlaḥah*. It is crucial to highlight this arrangement, as

conflicts between *maṣlaḥah* often occur, and in some cases, there is also a conflict between *maṣlaḥah* and *mafsadah*.

For example, the issue of the Advance Medical Directive (AMD) gives patients the right to outline procedures for their caregivers regarding the treatment method when they can no longer make decisions due to a coma or similar condition. In this conflict, even though there is a technology that can fulfill the patient's wishes, such as maintaining a comatose patient through dependence on a ventilator machine, what about the interests of other patients in terms of treatment space and infrastructure facilities, while the hope for recovery of these patients is higher (Mansor et al., 2016). In this example, there appears to be a conflict between *maṣlaḥah mawhūmah* and *maṣlaḥah qat'iyyah* in medical technology.

From a development perspective, defence technology in the era of 4.0, for example, is different from past times. Now, national defence no longer focuses solely on the number of soldiers but has shifted to more advanced technologies such as unmanned aerial vehicles (drones) or robots for warfare purposes (Česnakas, 2019; Galliott, 2017; Shaw, 2017). Examining advancements from this aspect, the question that needs to be raised is how far this technology can lead to the preservation of *maqāṣid al-sharī`ah*, primarily related to the preservation of life (*ḥifẓ al-nafs*) and security (*al-amn*). Therefore, fundamentally, the construction of technology in this field, according to Islam, should be viewed for its noble purpose: to defend the homeland's sovereignty. Nonetheless, the negative aspects or *mafsadah* resulting from the development of such technology should be controlled through the governance and politics of a country. This ensures the preservation of *maṣlaḥah* and *maqāṣid al-sharī`ah*, as well as security and freedom. Hence, modern technology construction should guarantee *maqāṣid al-sharī`ah* based on the consideration of *masāliḥ* as discussed.

Technological innovation must not cause harm (mafsadah) to human life

This principle relates to the first and second principles. Technological development in the era of IR 4.0 will not cause *mafsadah* to human life if its purpose aligns with *maqṣad al-shāri'* and ensures *maqāṣid al-sharī`ah*. This means that innovations produced will not cause any problems at the time of their creation or in the future if these two aspects are fulfilled. Therefore, technology must aim to address societal problems in line with Shariah in order to detect current harm. In this matter, several fiqh principles can be included as the framework for technological creation:

الضرر يزال

Translation: *Harm must be removed.*

درء المفاسد أولى من جلب المصالح

Translation: *Preventing harm (mafsadah) is prioritized over bringing benefits (maṣlaḥah).*"

إذا تعارض مفسدتان روعي أعظمها ضررا بارتكاب أخفهما

Translation: *When two harms collide, the greater harm (mafsadah) is prevented by committing the lesser harm (mafsadah).*

From these three principles, harm represents a state opposed to *maṣlaḥah*, where it must either be removed entirely or minimized. Al-Ghazālī (2010) emphasized that any action that does not preserve the objectives of religion, life, intellect, lineage, and wealth is a form of corruption in human life. Therefore, control to prevent harm resulting from technological development must be given due attention such as technologies developed with the explicit purpose of threatening *maqāṣid al-sharī`ah*, such as sperm collection devices for sperm banks, face-changing applications like FaceApp that invite gender resemblance (*tashabuh*), and applications built by manipulating big

data to open unrestricted interaction spaces. Although these applications offer certain benefits, their predominant usage patterns leaning towards harm are more critical considerations.

This shows that aside from relying on the original purpose of creation (*al-hāl*), future aspects or *al-maālat* must also be evaluated. This does not mean that technology should be barred from being utilized by Muslims. Instead, aspects of improvement that can preserve ethics, morals, and benefits should be continuously implemented. On the other hand, if technology has no benefits and invites harm to *maqāṣid al-sharī`ah*, it should be prohibited through the principle of *sadd al-dharā'i*.

According to Al-Qarāfī (2003), there are three situations in determining the status of a means *(wasīlah):*

a. *al-dharā'i* that has been agreed upon to be closed and prohibited in the actions of the *mukallaf*, such as cursing the statue of other religions.

b. *al-dharā'i* that has been agreed upon not to be prohibited in the actions of the *mukallaf*, such as planting grapes for fear of being used to make wine.

c. *al-dharā'i* that is a matter of dispute among scholars, whether it should be closed or permitted.

Based on the framework of *wasīlah* or *al-dharī'ah* stated by al-Qarrāfi, it can be concluded that any path that leads to corruption or *mafsadah* is not permitted by Shariah. If this premise is translated into the discussion topic, it can also be summarized that any technology leading to *mafsadah* is unequivocally prohibited. This aligns with the principle *lilwasāil ḥukm maqāṣid* (the means to take the ruling of the objectives). Therefore, any form of technology, whether in medical science, entertainment applications, agricultural science, and many more, must adhere to the third principle of *al-thawābit* .

CONCLUSION

Technology serves as a facilitator in managing the lives of people worldwide. Over time, technology will continue to evolve to meet the needs of humanity. Especially in the era of IR 4.0 technology, the emergence of various smart devices and applications such as AI, Big Data, IoT, and others has also led to new issues and problems that require scrutiny from a Shariah perspective. This indicates that technology is part of *al-mutaghayyirāt*, which is fundamentally flexible and not static in any particular form. However, technology development must align with the principles of *maqāṣid al-sharī`ah*, which are fixed in nature as previously discussed. In other words, the changes occurring in the technological revolution are subject to the *al-thawābit* from the principles of *maqāṣid al-sharī`ah* to ensure genuine *maṣlaḥah* (benefit) in the lives of humanity.

This meant that, National technology development policy must be firmly grounded in the enduring values of *maqāṣid al-sharī`ah* to prevent harm and ensure societal well-being. The regulation of technology particularly artificial intelligence should be guided by the principles of public benefit *(maṣlaḥah)* and harm mitigation, enforced through continually updated legal, ethical, and religious frameworks. Nations should establish dynamic and responsive mechanisms for monitoring and assessing the impact of technology, including AI, in light of emerging challenges. While the principle of change *(al-mutaghayyirāt)* in technology must be embraced, such change is only permissible when it does not compromise the unchanging religious and societal values *(al-thawābit)*.

Furthermore, any contemporary technology being developed must undergo a comprehensive and multi-dimensional assessment process. Accordingly, the framework of *al-thawābit* and *al-mutaghayyirāt* discussed in this article can serve as a valuable guideline for future studies in evaluating new technological advancements. By

adopting this principled approach, researchers and policymakers can ensure that every technological innovation is systematically examined not only for its potential benefits, but also for its alignment with the enduring objectives and values of Islamic law.

Author Contributions

Conceptualization: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Data curation: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Formal analysis: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Funding acquisition: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Investigation: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Methodology: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Project administration: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Resources: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Software: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Supervision: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Validation: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Visualization: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Writing – original draft: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A.; Writing – review & editing: M.S.H., L.A., M.A.H.I., K.A.M., & A.K.A. All authors have read and agreed to the published version of the manuscript.

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Data Availability Statement

The data presented in this study are available upon request from the corresponding author.

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Conflicts of Interest

The authors declare that they have no conflicts of interest.

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