

The Crimes Arising from the Use of Artificial Intelligence from the Perspective of Islamic Jurisprudence and Their Impact on Sustainable Development and the Economy

Ali Ahmed Salem Farhat¹, Jamal Lakhdar Hammoud Azzoun², Ahmed Youssef Saadiya³

^{1,2}Department of Sharia, College of Sharia, Najran University, Kingdom of Saudi Arabia

³Department of Islamic Studies, Faculty of Arts, Taibah University; Kingdom of Saudi Arabia

aafarahat@nu.edu.sa¹, ali.ahmed6405@gmail.com¹, jlazoune@nu.edu.sa² and aabdousaadia@taibahu.edu.sa³

<https://orcid.org/0009-0001-0038-8629>¹, <https://orcid.org/0009-0008-7464-8930>² and <https://orcid.org/0009-0009-6141-290X>³

ARTICLE INFO

ABSTRACT

Received: 21 Dec 2024

Revised: 15 Feb 2025

Accepted: 28 Feb 2025

This research aims to elucidate the reality of crimes arising from the use of artificial intelligence from the perspective of Islamic jurisprudence, their significance, their constitutive elements, their penalties, and their causes for exemption, as well as their impact on sustainable development. The study adopts a descriptive methodology, employing an analytical approach, and has produced several key findings, the most notable of which are as follows:

Artificial intelligence is defined as the ability of a machine to simulate the human mind and its processes, such as reasoning, discovery, and the utilisation of past experiences. Crimes committed via artificial intelligence may be perpetrated by a single individual or by multiple individuals. The primary means of proving the crime of using artificial intelligence include testimony, confession, inspection, expert evidence, documentary evidence, circumstantial evidence, and oath-taking. Artificial intelligence is a crucial tool for supporting production, enhancing sustainable development, improving efficiency, and ensuring quality. Although the potential harm caused by artificial intelligence is possible, it remains within narrow bounds due to the availability of precautionary measures, experimental validation, and the necessary equipment. Furthermore, the penalty for this crime is waived upon the death of the convicted person, and its enforcement is suspended; however, any financial penalties, compensations, or costs stipulated in the judgement shall be executed against the deceased's estate. Finally, it is imperative to develop computational processes through the use of artificial intelligence across all activities in order to support sustainable development and economic growth.

Among the key recommendations:

- *Exercise caution when employing artificial intelligence technologies.*
- *Link artificial intelligence technologies to sustainable development.*

Keywords: Crime – Use – Artificial Intelligence – Islamic Jurisprudence.

INTRODUCTION

All praise is due to Allah, who guides whomever He wills to seek knowledge in religion and leads whomever He pleases to His straight path. I bear witness that there is no deity worthy of worship except Allah alone, without partner, and I bear witness that Muhammad is His servant, His messenger, His chosen one among His creation, and His beloved. May Allah be pleased with his companions, his wives, his family, and all those who righteously follow them until the Day of Judgment.

The Kingdom is at the forefront in embracing the phenomenon of artificial intelligence and is diligently benefitting from the experiences of other nations in this field, with its courts witnessing numerous cases related to violations of cybersecurity; this research delineates the most significant aspects of this matter.

It is well known that artificial intelligence can facilitate all tasks related to business and can make decisions more intelligently than human agents. In other words, artificial intelligence is capable of performing manual tasks flawlessly, although errors may occasionally occur.

This research highlights several jurisprudential rulings pertaining to crimes arising from the use of artificial intelligence.

Research Problem: The research problem may be formulated in the following primary question: What is the reality of crimes arising from the use of artificial intelligence from the perspective of Islamic jurisprudence, and what are their elements, their penalties, and their grounds for exemption?

Research Objectives: Based on the foregoing inquiries, the objectives of the study may be formulated as follows:

- To define artificial intelligence.
- To elucidate the relationship between crime and artificial intelligence.
- To clarify the jurisprudential foundation of criminal liability arising from the use of artificial intelligence.
- To delineate the penalty applicable to crimes of artificial intelligence under Islamic jurisprudence.
- To outline the grounds for exemption from the penalty applicable to crimes of artificial intelligence.

Research Methodology: The study adopts an inductive methodology, whereby the subject matter of the research is traced from the body of specialised writings that have addressed it through exposition and analysis.

Research Plan: The study consists of an introduction, and two topics, a conclusion, and a bibliography index:

Introduction: This section addresses the research problem, its objectives, significance, methodology, and structure, and includes two topics, a conclusion, and a list of references..

Topic One: Definition of crimes arising from the use of artificial intelligence.

Topic Two: The jurisprudential foundation of crimes arising from the use of artificial intelligence.

Topic Three: The grounds for exemption from the penalties applicable to crimes arising from the use of artificial intelligence.

Topic One: Definition of crimes arising from the use of artificial intelligence.

It has been stated that, under certain circumstances, errors may occur by artificial intelligence, resulting in crimes whose issues encompass a range of complexities that lack a clear jurisprudential and legal foundation.

First: Definition of Crime

In linguistic terms, "crime" is derived from the Arabic term *jurm*, meaning transgression, and *jurm* also signifies sin, with its plural forms being *ajrām* and *jurūm*. In the Hadith it is stated: *"The worst of the Muslims in terms of crime is the one who asks about something that was not forbidden, so that it becomes forbidden because of his inquiry."*

The phrase "tajarrama alayya fulan" means: "Someone falsely accused me of a crime I did not commit.". The criminal is the offender. [15]

Crime is defined in Islamic law as a prohibited act for which Allah has prescribed either a fixed penalty (ḥadd) or a discretionary penalty (taʿzīr). [29] In legal terminology, a crime is defined as a voluntary act prohibited by law for which the perpetrator is subject to criminal penalty. [9]

From the foregoing, it is evident that both the Islamic and legal definitions of crime conform to the linguistic definition in that a crime is considered a prohibited act; however, the concept of crime in the language is broader than in Sharia and statutory law. [6]

Second: Definition of Artificial Intelligence

The definition of artificial intelligence becomes apparent through first considering its origin, conceptualisation, and manufacture.

1. Origin of Artificial Intelligence

It is an intelligence invented by man, which emerged with the development witnessed in computers in the mid-twentieth century. It was discovered that the computer is capable of performing tasks more complex than previously believed, as it can discover proofs for complex mathematical theories; consequently, it is not capable of matching the flexibility of the human mind. [1]

2. The Conception and Manufacturing of Artificial Intelligence

Artificial intelligence has been innovated in the form of complex machines that utilize computer properties and perform many tasks similar to us humans. Generally, these machines possess senses akin to humans; however, considering that they react and possess deeper sensory capabilities than humans is a correct assumption. In short, human intelligence has been integrated into machines, resulting in artificial intelligence. In other words, this technology, which will make the future of humanity better, constitutes the future of humanity itself. The functions of these technologies resemble human functions, hence they have been employed to accomplish tasks that we are unable to perform. If we attempt to define this term, we would find neither the appropriate lexicon nor an accurate definition that suits its characteristics. You could say that it operates a specific device akin to the human brain. [2]

3. Definition of Artificial Intelligence

It is the ability of a machine to simulate the human mind and its processes, such as reasoning, discovery, and the utilisation of previous experiences. We may also assert that it is the computational component that enables us to achieve objectives in the world around us. [20]

Elements of the Crime Arising from the Use of Artificial Intelligence

As is well known, crimes are prohibited under Islamic law, for which Allah has prescribed punishment either by fixed penalty (ḥadd) or by discretionary penalty (ta'zīr). Prohibitions consist of either the commission of an act that is expressly forbidden or the omission of an act that is mandated. We have stated that these prohibitions are described as "legitimate" because they must be forbidden by the texts of Sharia, and an act or omission is not in itself a crime unless it is punishable. The elements of crimes arising from the use of artificial intelligence are three:

1. There must exist a textual prohibition of the crime and an associated punishment, which is what we today term the "legal element" of the crime.
2. The commission of the act constituting the crime, whether by action or by omission, which we term the "material element" of the crime.
3. The perpetrator must be held accountable, that is, legally responsible for the crime, which we now refer to as the "mental element" of the crime. [3] [9] [10]

Conceptualisation of Crimes Committed through the Use of Artificial Intelligence According to Jurists

Crimes committed through the use of artificial intelligence do not fall outside the scope of participation in crime. Such crimes may be perpetrated by a single individual or by multiple individuals, each contributing to the execution of the crime or cooperating with others in its commission.

The forms of participation and cooperation, regardless of their differences, may be categorised into four types: an offender may participate in executing the material element of the crime alongside others; may agree with others to execute it; may incite another to commit it; or may assist in committing the crime through various means without directly participating. The individual who directly executes the material element is termed a "direct accomplice", whereas one who does not directly execute the crime is termed an "indirect accomplice". Indirect participation is a form of causation, and the jurists' discussion on causative participation in relation to murder and injury is sufficient to derive the general principles upon which they based their rulings on this form of participation. [3]

Liability of the Direct Offender in Cases of Concord and Collusion

Most jurists differentiate between the liability of a direct accomplice in cases of concord and in cases of collusion. In cases of concord, each accomplice is held accountable only for the consequences of his own actions and not for

those of others. In cases of collusion, however, each is held accountable for the entire crime, including murder. Concord implies that the will of the participants in the crime is directed towards its commission without any prior agreement, whereas collusion necessitates a prior agreement among the direct accomplices to commit the crime, meaning that they all intend, prior to the act, to achieve a specific purpose and cooperate during its commission, whereby both are held accountable for the crime. [3]

Imam Abu Hanifa makes no distinction between concord and collusion, maintaining a uniform ruling whereby the offender is held accountable solely for his own actions in both instances. The other imams, however, differentiate between concord and collusion as described above, although some jurists in the Shafi'i and Ahmad schools adhere to the view of Abu Hanifa. [21]

The conclusion derived from the foregoing is that

The perpetrator is considered a direct accomplice whenever an action is performed that is deemed to initiate the execution of a crime. Thus, they are regarded as direct accomplices in the crime whenever considered as commencing its execution, whether the crime is completed or not. A person is considered a direct accomplice if another person, acting under instructions, is merely an instrument in the instigator's hands. There is consensus among jurists on this principle, but they differ in its application. For instance, if a person, believing to be acting righteously, is instructed to kill another and does so, the instigator is considered the direct perpetrator of the crime according to Maliki, Shafi'i, and Ahmad, even if they did not physically partake in the act, as the instructed was merely an instrument in the hands of the instigator. Thus, crimes committed by programmers and operators of devices and applications involving artificial intelligence are adjudicated based on the principles outlined above [32].

Means of Proving Crimes Committed through Artificial Intelligence

The proof in crimes involving artificial intelligence, like other crimes, involves establishing the crime through its legal elements and then attributing it to the accused as the perpetrator. This is done through what is known as evidential support—evidence that establishes their connection to the crime either as a primary actor or as an accomplice, or negates such a connection. The field of criminal evidence encompasses this [5].

Proof also involves presenting evidential support that clarifies the extent of the perpetrator's involvement in the crime, positively or negatively, whether as a primary actor or as an accomplice through incitement, agreement, or assistance. These are the bases upon which the judiciary either convicts or exonerates the accused [9].

The most important methods recognized by criminal law for proving crimes include testimony, confession, inspection, expert opinions, written evidence, circumstantial evidence, oaths, among others [8].

From the foregoing, it is evident that the proof principle in Islamic jurisprudence differs from that in statutory law. Sharia law is concerned with specific conditions that must be met in testimony and imposes a quorum for it. Other means of proof, such as confession, writing, and swearing, are surrounded by safeguards that ensure the preservation of rights, respect for individual freedoms, and reputations [18].

Topic Two: Islamic Jurisprudential Foundation of Crimes Arising from the Use of Artificial Intelligence

Artificial intelligence is a significant tool in supporting and enhancing sustainable development and ensuring the quality of production. Because it operates based on sophisticated mechanical systems and advanced programming techniques, tasks performed by artificial intelligence are characterised by precision and adhere to the standards and specifications of ideal production. However, the occurrence of errors and damage is very possible and may adversely affect humans [30].

Conceptualisation of the Harm Caused by Crimes Arising from Artificial Intelligence

Some specialised studies suggest that artificial intelligence can lead to criminal harm, either intentionally or by mistake.

Intentionality: occurs when it is programmed incorrectly on purpose to harm a specific party.

Mistakes: are more common and can occur due to improper use, such as the device exploding. It should be noted that these devices consist of human-made components like circuits and wiring, all of which are susceptible to damage. This damage could extend to those nearby the device or others.

German experts have noted that: errors can occur, for example, in a collision involving an artificially intelligent device equipped with sharp instruments interacting with a human. They have conducted experiments using a robotic arm fitted with sharp tools programmed to damage soft human tissues as a test. In some cases, they found that the robotic being could inflict "fatal" injuries if it attacked a natural human. These tests were performed to assess the potential dangers and harm that could be inflicted on humans, with lethal outcomes observed [31].

Islamic Jurisprudential Foundation of Criminal Liability in Artificial Intelligence

It is acknowledged among jurists that criminal liability varies depending on whether the action itself is permissible or not. If the act is permissible, liability is based on negligence due to carelessness, lack of precaution, or failure to adhere to the orders of public authorities or Sharia. Conversely, if the act is not permissible, the basis of liability is the commission of the impermissible act, even if it did not arise from negligence [27-28].

General rules govern whether a person is at fault in felonies

Jurists adhere to two general principles governing the liability of the perpetrator in cases of error, which allow us to determine whether someone has made a mistake or not.

First Principle: Any harm caused to others must be accounted for by the doer or the cause if it could have been avoided. It is considered avoided if there was no negligence or lack of foresight. If it is impossible to prevent, there is no liability.

Second Principle: If an act is not legally permitted (not permissible), and it is carried out by the actor without compelling necessity; it constitutes an unnecessary transgression, and whatever results from it, the actor is liable, whether it could have been avoided or not.

Even if extreme caution, foresight, and prevention were exercised and an unexpected incident occurred, or a lightning strike caused something from his property to fall, such as a scale or a balcony, and damaged a person or property; there is no liability or compensation [28].

Summary of Criminal Liability Arising from the Use of Artificial Intelligence

Considering the jurisprudence on felonies and the consequences of crimes resulting from artificial intelligence, it is evident that while damages from artificial intelligence are conceivable, they are limited due to appropriate precautions and necessary setups and trials. Additionally, the element of intent to harm is generally absent, plus the individual was performing a permissible action; analogous to someone who digs a well into which a person falls or hunting legally permissible game that accidentally results in human death. In such cases, no retaliation (Qawad) or legal retribution (Qisas) applies, only a reduced blood-money (Diya) is required [22-25].

From this, it emerges that the person controlling the artificial intelligence (the programmer) acted within permissible bounds, and artificial intelligence is predominantly produced for benefit and utility, enhancing efficiency and saving time.

Thus, should damage occur, it is legally characterised according to the surrounding circumstances. If the action was permissible and occurred without negligence, it falls under the category of mistakes for which there is no liability on the operator, due to the absence of negligence, carelessness, and lack of precaution, paralleling the rules of neglect. As the operator acts in good faith, "There is no blame upon the weak, nor upon the ill, nor upon those who do not find anything to spend, if they are sincere (in duty) to Allah and His messenger. There is no way (of blame) against the doers of good. Allah is Forgiving, Merciful" [Tawba: 91]. If the harm results from negligence, the responsibility lies with the operator [23].

It may be appropriate in the coming periods to expand the use of technology to support this field (Ahmed, Alharbi, & Elfeky, 2022; Elbyaly & Elfeky, 2023a, 2023c, 2023e, 2023f, 2023g, 2023h, 2023i; A. Elfeky, 2017; A. I. M. Elfeky & Elbyaly, 2016, 2019, 2023a, 2023b, 2023c, 2023e, 2023f, 2023g; A. I. M. Elfeky, Najmi, & Elbyaly, 2023, 2024a, 2024b; Elfekyand, 2016; Masada, 2017; Masadeh & Elfeky, 2016; Maltare et al., 2023).

Topic Three: Causes for Exemption regarding Crimes Arising from the Use of Artificial Intelligence

We mentioned that the person controlling artificial intelligence (the programmer) is responsible for the outcomes of artificial intelligence, and the Causes for Exemption regarding crimes resulting from artificial intelligence in

Islamic jurisprudence are: death, repentance, pardon, and statute of limitations. Meanwhile, these exempting causes for penalties in law are three: the death of the convicted person, pardon, and the statute of limitations.

First: Death of the Convicted Person: The penalty is waived upon the death of the convicted person, and its enforcement is suspended; however, any financial penalties, compensations, or costs included in the judgement shall be enforced against the deceased's estate. [10]

Second: Pardon: Pardon is defined as the relinquishment by society of all or some of its rights arising from the crime, and pardon from penalty is the termination by the state of the convicted person's obligation to serve all or part of the sentence. [10]

Third: Statute of Limitations: In law, the Statute of Limitations refers to the lapse of a period specified by law, beginning from the date the final judgement is issued, during which no execution procedures are undertaken. Thus, the Statute of Limitations is its termination after a specified period determined by law, starting from the date the right to its execution arises. [19]

The rationale for the waiver of the penalty due to the statute of limitations is that enforcing the punishment after such a period does not achieve any of its objectives. It aims to achieve justice and benefit, and the accused has already faced his punishment by remaining out of sight for the duration. Moreover, there is no societal interest in executing the punishment once the crime has been effaced. [17]

Furthermore, it has become clear that there are four reasons for the annulment of punishment for this crime in Islamic jurisprudence: death, repentance, pardon, and the statute of limitations. In statutory law, the reasons for annulment of punishment are three: the death of the convicted person, pardon, and the statute of limitations.

It has been observed that the law aligns with Islamic jurisprudence in that financial penalties do not expire upon death, as the financial penalty can be claimed from the estate. Similarly, the law agrees with Islamic jurisprudence in the expiration of punishment by the pardon of the ruler if it is deemed beneficial. [3].

The extent of the impact of sustainable development and the economy on crimes resulting from artificial intelligence

As is known, sustainable development is about elevating production levels by employing the best means to achieve the best investment across all fields, while not neglecting to adhere to principles of justice in production and consumption to ensure the welfare of all members of society, without causing harm to nature or the interests of future generations. Artificial intelligence stands as one of the main pillars of boosting production, facilitating business operations, and making decisions, all of which in turn support sustainable development and the economy. This necessitates the development of the computational aspect through artificial intelligence in all activities to elevate production levels that enable us to achieve the desired goals, and to ensure their safety to prevent technical malfunctions that could cause serious crimes [20].

CONCLUSION

The study has yielded numerous findings; the most notable include:

- **Artificial Intelligence:** It is the machine's ability to emulate the human mind and its operations, such as its capability for thought, discovery, and learning from past experiences.
- **Crimes through Artificial Intelligence:** These may be committed by a single individual or multiple individuals.
- **Means of Proving AI-related Crimes:** Include testimony, confession, inspection, expertise, written evidence, circumstantial evidence, and oaths.
- **Artificial Intelligence as a Tool:** It is crucial in supporting production, sustainable development, and ensuring quality.
- **Potential Damages from Artificial Intelligence:** These are possible but limited due to precautions, testing, and necessary preparations.
- **Exemption of Penalties:** Penalties are nullified upon the death of the convicted, except for financial penalties and compensations which are executed from the estate.

- **Development of Computational Aspects through Artificial Intelligence:** Necessary in all activities to support sustainable development and the economy.

RECOMMENDATIONS

- Caution in the use of artificial intelligence technologies.
- Integration of artificial intelligence technologies with sustainable development.

ACKNOWLEDGMENT

The authors are thankful to the Deanship of Graduate Studies and Scientific Research at Najran University for funding this work under the Growth Funding Program grant code (NU/GP/SEHRC/13/72-2).

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