

THE SUITABILITY OF CRIMINAL LIABILITY RULES FOR ARTIFICIAL INTELLIGENCE

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ABSTRACT

The reality of artificial intelligence and its advanced technologies cannot be ignored, as we have witnessed the use of these technologies in various fields in our current era, whether military, industrial, or medical. The existence of these technologies is attributed to the creativity of human minds. Based on this, a debate has arisen regarding the suitability of criminal liability rules for artificial intelligence programs and whether they possess legal personality, or not, to establish the legal classification of the actions of these advanced programs and devices.

Our findings indicate that artificial intelligence programs are essentially tools under human control, necessitating particular caution to mitigate potential risks and damages they may cause. Their inherent nature does not support the assignment of legal personality, nor do they qualify for criminal liability, as such liability presumes the presence of free will in carrying out actions. Consequently, it is essential to develop a distinct legal framework for the responsible use of these intelligent technologies, ensuring accountability for the actions of AI programs lies with their users and developers.

Keywords: Criminal Liability, Legal Personality, Artificial Intelligence, Rights and Freedoms, Scientific and Technological Progress, Country Context.

INTRODUCTION

Criminal liability refers to the obligation to assume the legal consequences arising from the commission of a criminal act. Criminal jurisprudence has traditionally established this liability in connection with human beings of sound mind. However, with the development of intelligent technologies and the entry into the digital data era, culminating in artificial intelligence programs, it has become imperative to examine the scope of criminal liability and the potential for its extension beyond natural persons or legal entities with recognized legal personality, whose representatives' actions are held accountable under established legal principles.

The widespread use of artificial intelligence programs across various fields, whether commercial, economic, or even military, raises a legal issue regarding their capacity to bear criminal liability for their actions and the potential harm they may cause, especially when relying on AI without the established legal safeguards and criteria applicable to natural persons. Such safeguards are essential to prevent errors that could harm society or its individuals. Despite this, one cannot overlook AI's capacity to achieve further scientific advancements and innovation across diverse fields. However, reliance on AI is also fraught with numerous risks, chief among them the possibility of committing actions that, from a legal standpoint, qualify as criminal acts necessitating the imposition of criminal penalties. Therefore, it is crucial to define the elements of accountability for AI programs to prevent a legislative gap that could jeopardize rights and obligations (Saleh et al., 2024; Ajouz & Abu-ALSondos, 2024).

Importance of the Study

The research significance of the topic of liability for AI actions lies in clarifying the legal scope of criminal liability and the possibility of its extension beyond natural or legal persons. The rapid advancement in AI has become a reality that necessitates criminal jurisprudence to define the elements of liability required to mitigate AI-related risks, given its capacity for leadership and innovation across various fields impacting individual rights and obligations. Moreover, the swift transition to an era of technology underscores the need to establish and review certain legal provisions to prevent any legislative gaps that could lead to legal instability.

Research Problem

The problem of the study riles on the extent to which the elements of criminal liability can be defined for AI programs and their compatibility with the traditional rules of criminal liability applicable to natural or legal persons under conventional criminal law. Additionally, it examines the affirmation or negation of legal personality for these intelligent programs. This central issue raises several key questions:

1. What is artificial intelligence, and is it considered an object or a person?
2. Do AI programs possess an independent legal personality?
3. To what extent can the rules of criminal liability apply to AI actions?
4. Is it possible to extend the scope of criminal liability beyond natural or legal persons?

Study Objectives

This study aims at to identify the specific elements of criminal liability for AI programs through the following objectives:

1. Determining the affirmation or negation of legal personality for AI programs.
2. Examining the applicability of traditional criminal liability rules to AI programs.
3. Exploring the possibility of expanding the scope of criminal liability to encompass AI programs.

METHODOLOGY

The research employs both the analytical and critical methodologies to assess the suitability of criminal liability rules within criminal law for AI activities. Criminal law traditionally affirms the legal personality of natural and legal persons. To address this issue, a comparative analysis of various legal provisions is essential to explore the potential for extending liability to AI programs. This approach aims to define accountability and mitigate the future risks posed by advanced intelligent technologies.

Research Outline

The study is divided into two sections. The first section addresses the potential risks of AI programs to rights and freedoms. The second section explores the possibility of extending elements of criminal liability to AI programs.

Section One: Risks of Artificial Intelligence and the Establishment of Independent Legal Personality

1. First Topic: Definition of Artificial Intelligence and Its Risks to Rights and Freedoms

2. Second Topic: Affirmation or Denial of Independent Legal Personality for AI Programs
3. Section Two: The Extent of Criminal Liability for AI Programs
4. First Topic: Elements of Determining Criminal Liability
5. Second Topic: Applicability of Criminal Liability Rules to AI Programs
6. Conclusion: Findings and Recommendations

SECTION ONE

Risks of Artificial Intelligence and the Establishment of Independent Legal Personality

The dominant trend today centers around the global race to leverage advanced technology across various aspects of daily life. It is evident that technology is employed in fields such as education, healthcare, economy, and even the military sectors of nations producing this intelligent technology. However, it is equally important to consider the potential risks associated with artificial intelligence and its dependency on human oversight. To date, intelligent technology has not been granted a clearly defined independent legal personality that would hold a robot fully accountable for actions taken independently of a natural person. This section will first address the risks associated with the use of AI-enabled technology, followed by an examination of the possibility of establishing an independent legal personality for these intelligent programs in other section.

First Topic: Definition of Artificial Intelligence and Its Risks to Rights and Freedoms

Artificial intelligence is defined as a computer system focused on the study and design of intelligent electronic machines capable of making decisions in various situations. This is achieved through engineering sciences that enable these machines to simulate the human mind in terms of thinking, discovering, and, consequently, decision-making (Abdul Rahman, 2018). It can also be described as the ability of intelligent machines to infer in a given situation after it is described through intelligent programs, enabling the machine to reach a specific approach suited to the situation and make decisions. This process relies on equipping these intelligent programs with the necessary knowledge and information to understand and simulate human intelligence and behavior (Darar, 2019). Essentially, AI consists of intelligent entities created by humans in the form of machines or computers, capable of acquiring and applying knowledge (Al-Adwan, 2021).

AI technologies can be leveraged in the criminal field, particularly in investigations aimed at uncovering and predicting crimes in an intelligent manner (Abu Al-Naja, 2021). As indicated by previous definitions, artificial intelligence is essentially a sophisticated electronic program that derives its intelligence from the human mind that designed it, allowing it to perform some human cognitive skills, such as intelligence, memory, communication, decision-making, and behaviors based on data stored in the memory of the program or entity, as it is sometimes called. Scientific and technological progress would not have thrived and spread without the unique and unparalleled gift of human intelligence granted by the Creator. As stated in the Holy Qur'an: "So blessed is Allah, the best of creators", and "This is the creation of Allah. So show me what those besides Him have created".

The researcher views artificial intelligence as embodied in programs and electronic machines (objects) capable of storing data and knowledge, capable of performing certain intelligent electronics operations such as movement and communication, yet lacking capabilities such as feeling and sensing. This leads to the conclusion that decision-making varies depending on the situation; as some decisions rely on a human's sense or intuition, which

prompts a suitable response to prevent potential harm—something artificial intelligence is inherently incapable of. Therefore, AI is a product of computer engineering and technological advancements derived from human intelligence, which cannot replace, match, or equate it (Abdulla et al., 2022; Jaradat et al., 2023).

Artificial Intelligent Risks on Rights and Freedoms

Personal freedom is a position that allows an individual to engage in their activities (Abu Amer, 1979). Scientific advancements have made life easier and more efficient across educational, health, cultural, economic, industrial, and various other domains, improving daily life by facilitating communication, transportation, care, and other conveniences that reduce human effort. However, alongside these benefits, artificial intelligence presents certain risks to individual rights and freedoms, necessitating all precautionary and legal measures to prevent these risks and mitigate their potential impact, which could, in some cases, result in harm severe enough to be classified as a crime under the principle of criminal legality if caused by a fully accountable human.

The most significant of these risks include the following:

First: One of the primary threats posed by AI to individuals is the right to access employment opportunities—a natural right that individuals acquire when they are able to work. Today's advancements in the development of intelligent robots present the possibility of these machines which can replace humans in many roles currently performed by individuals. Consequently, this type of AI reduces job opportunities and contributes to rising unemployment, which may drive individuals to engage in criminal behavior, as unemployment is one of the leading factors contributing to crime. The notion that robots might replace humans is also a potential reason for deviant behavior within society (Abdul Rahman, 2018).

Second: The right to healthcare is at risk when intelligent systems are used independently in patient care, as this reduces the ability to fully understand the patient's health requirements. Medical care is inherently a collaborative effort undertaken by a team of specialized doctors. The use of these intelligent programs also increases the risk of hacking, which can lead to complications requiring direct human intervention. This highlights some of the dangers associated with using artificial intelligence in medical work, as AI lacks the full range of cognitive faculties inherent to human beings—faculties that distinguish humans from other creatures and advanced objects such as AI programs (Al-Dahayat, 2019).

Third: The threat of AI programs to the right to privacy is significant, as laws have guaranteed protection for personal rights closely tied to human life and public freedoms. With the increasing use of AI systems, individuals' freedom and their right to protect personal rights are at greater risk. This is due to the vast amount of personal data and information encompassed within various advanced technological programs, including AI. These intelligent programs could potentially lead to the misuse of personal information, thereby exposing individuals to violations of their personal privacy (Mashaal, 2021).

In conclusion, scientific advancements and the resulting intelligent technologies play a significant role in serving human society, providing convenience and efficiency across various service sectors. However, these technologies and intelligent programs are not without risks to individuals, such as infringements on privacy, the right to work, healthcare, and other essential rights. It is, therefore, imperative to adopt all necessary legal and technical protections and precautions to prevent such risks, especially in light of calls advocating for AI programs to be granted a form of independent legal personality. This perspective positions AI programs on par with natural persons, attributing to them cognitive faculties enabling appropriate decision-making for various situations—a notion we refute, particularly at this time, as

AI programs have not yet attained an independent legal personality that would allow them to bear responsibility for their actions. Consequently, examining the issue of legal personality for AI programs will be addressed in the second part of this study.

Second Topic: Affirmation or Denial of Independent Legal Personality for AI Programs

Legal persons, including natural and juridical persons, are granted an independent legal personality as they are deemed capable of holding rights and assuming obligations—this is the primary criterion for conferring legal personality. On this basis, juridical persons are afforded legal personality, as they possess legal capacity that enables them to acquire rights and engage in legal actions through a legal representative. Civil liability resulting from the improper use (legal personality of AI) is discussed in detail (p. 241). However, the law does not recognize legal personality for entities beyond these categories, as illustrated in Article 30 of the Jordanian Civil Code No. 43 of 1976, which stipulates in Paragraph 1: "The personality of a human begins with their birth alive and ends with their death."

Further, Article 50 of the same law specifies that "juridical persons include:

1. The state and municipalities under the conditions defined by law, as well as public institutions and other entities granted juridical personality by law.
2. Religious bodies and sects to which the state grants juridical personality.
3. Waqf (endowments).
4. Commercial and civil companies.
5. Associations and institutions established according to legal provisions.
6. Any group of individuals or funds to which legal personality is granted by a statutory provision."

From this, we conclude that the law does not recognize legal personality for entities outside of natural and juridical persons.

Based on this foundation, we observe that the legislator grants legal personality to those who are eligible to acquire rights, rather than solely based on actual existence. This raises questions regarding the capacity of AI programs to acquire rights and, consequently, the possibility of granting them legal personality. What is the nature of these rights specific to AI programs that could serve as a legal basis for them to enjoy rights and, therefore, assume obligations?

AI programs are considered objects under human control, requiring special care to prevent potential risks or damage they may cause. Legally, these objects are not recognized as having the capacity to acquire rights or assume obligations, and thus cannot be granted legal personality, as this does not align with the nature of such programs, despite their intelligent features. This is evidenced by Article 291 of the (Jordanian Civil Code No. 43 of 1976), which states: "Objects and machines: Whoever has objects requiring special care to prevent their harm, or mechanical devices, shall be liable for any damage caused by these objects, except for that which could not be avoided, without prejudice to any specific provisions related thereto."

The calls to grant legal personality to certain AI programs are respected, yet we remain cautious regarding this perspective. Proponents of this view argue based on the perceived need to grant AI programs legal personality due to their utility to humans across various fields, claiming rights such as having a name, an identification number, and insurance coverage. While no one disputes the positive impact of technological advancement and intelligent programs in enhancing human services, thereby making life easier and saving time and effort, this criterion alone is insufficient to justify granting AI programs legal personality. AI remains a tool controlled and directed by humans, at any time and in any manner desired. Furthermore, the concept of AI's right to a name or insurance is not among the fundamental rights that would warrant bestowing it with legal personality, whether independent or de-

pendent. Additionally, the theory of a "controlled person" reinforces the notion of these intelligent programs as directed and controlled tools, used at the discretion of their owner or possessor, in the place and time of their choosing (Al-Khatib, 2020).

The researcher views artificial intelligence as a significant scientific advancement and a step forward for humanity in fostering prosperity across various fields and achieving greater benefits for humankind. However, the criteria of necessity, or the supposed right to a name and insurance, are insufficient and inadmissible grounds for granting AI programs legal personality. Legal personality is attributed only to those eligible to acquire rights and bear responsibilities—those who possess awareness and can distinguish between right and wrong, who enjoy rights to freedom, expression, life, and happiness. However, these intelligent programs remain merely tools under human control, used as desired, and do not transcend their classification as objects. They lack the sensory or emotional cognitive faculties required to enjoy rights or bear obligations. By the standard of necessity, one might consider a tree: it is called a tree and serves the essential function of providing oxygen, yet does this mean we should consider granting it legal personality?

Section Two: The Extent of Criminal Liability for AI Programs

The scope of criminal liability for AI programs is based on the fundamental premise upon which they operate. These programs are supplied with data and information by developers, designers, programmers, and users, shaping their choices according to the input they receive. Legally, the law only recognizes legal personality for natural and juridical persons, who bear full criminal responsibility for their actions. The question here is whether the elements of responsibility can exist within AI as an independent entity. This issue will be the focus of this section (Ajouz et al., 2023).

First Topic: Elements of Determining Criminal Liability

The elements of criminal liability are established by legal rules for individuals who are recognized as possessing legal personality, as discussed previously. Assuming criminal liability without legal personality is problematic; an AI entity cannot bear criminal responsibility, which is not presumed but rather grounded in tangible elements such as awareness and discernment. These entities still lack the sensory and cognitive capacities that define human intellect, making them unable to bear responsibility (Al-Khatib, 2020).

Undoubtedly, the foundation of criminal liability is freedom of choice. It is a concept that encompasses individuals' fundamental right to make decisions and actions according to their own will, free from external interference or imposed constraints. This individual freedom reflects the right to choose the appropriate course of action in every situation and includes aspects such as freedom of opinion, expression, the ability to work, and decision-making (Al-Majali, 2020).

In line with this principle, Article 74, Paragraph 1, of the (Jordanian Penal Code No. 16 of 1960) states: "No one shall be punished for an act unless they committed it with awareness and intent." This indicates that accountability for an act rests with those possessing both perception and intent.

Perception is the ability to distinguish, interpret, and understand the surrounding environment, including the capacity to process and comprehend reality before making a decision. It encompasses a range of cognitive and intellectual faculties that aid in understanding the surrounding circumstances before making a decision. This is evident through human sensory faculties such as sight, hearing, smell, and taste, as well as focus, attention, observation,

thinking, and analysis, along with past experiences and acquired knowledge. This perception is crucial for forming a clear and accurate understanding of the surrounding environment, enabling us to interact effectively with it before making decisions. It is worth noting that perception varies from person to person and is influenced by various factors, including individual capacities, neurological changes, and psychological disorders (Al-Majali, 2020).

The researcher finds it impossible to integrate cognitive, sensory, and emotional will into AI programs, as they are material entities driven by an external, separate will (that of humans) and directed as desired. Consequently, AI programs operate under external commands rather than internal directives derived from cognitive faculties, which are inherently absent within these AI-driven systems.

Second Topic: Applicability of Criminal Liability Rules to AI Programs

The application of criminal liability rules to AI programs presents specific legal challenges, particularly regarding the nature of the entity capable of bearing responsibility. Reviewing the general principles of criminal liability, we find that legislators impose criminal responsibility on natural and juridical persons, with criminal liability and it is largely excluding any third category from such responsibility on the basis of general provision of criminal liability. This raises the question: Can AI programs fall within the scope of criminal liability?

AI is generally a set of algorithms and data used to make decisions or achieve specific objectives. When these programs cause harm or injury, determining liability becomes complex. Criminal jurisprudence does not support assigning criminal responsibility to AI programs, viewing them merely as tools that an individual might exploit to commit a crime. However, criminal responsibility thus remains confined to natural and juridical persons (Al-Qadi, 2021). For these reasons, the application of criminal liability to AI programs can be assessed as follows:

1. AI programs are not independent entities as Legal responsibility under general criminal liability rules applies solely to natural and juridical persons, both of which must possess free will and the ability to choose which is absent in AI programs. This free will is rooted in cognitive faculties that form human conscience and intellect (Atmazi, 2022).
2. AI programs consist of data and algorithms that remain subject to human control, functioning as effective tools guided by human decision-making and oversight. As such, they are not autonomous entities capable of making decisions without human involvement, whether in decision-making or supervisory capacities.
3. The necessity of human intervention, reflected in the psychological activity that influences human behavior (Tharwat, 2003), is prone to success or error, which in turn affects the operations of AI programs, leading them toward correctness or mistakes. This outcome depends on human input and the nature of the data and algorithms entered into the central processing unit, which ultimately makes the decisions (Ben Ouda, 2022).
4. The nature of AI programs as objects without independent financial capacity, as AI lacks an independent financial standing, making certain penalties, such as fines or asset confiscation, inapplicable. Likewise, sanctions involving deprivation of liberty or even capital punishment are incompatible with the nature of AI, as it lacks fundamental human rights, such as the right to life (Al-Sharif, 2021).

In conclusion, criminal liability is not presumed; it is built on concrete elements such as perception and causation. Those advocating for AI programs to bear criminal responsibility overlook the legal logic that assumes an ability to distinguish and bear the consequences of serious actions. AI programs merely execute commands and operations related to information technology which relies on digital inputs primarily driven by human will and the method of operation as determined by the individual's intent.

CONCLUSION

Every beginning has an end, and this study concludes by emphasizing that AI programs are objects, not persons, and make decisions based on digital inputs and commands reflecting human will and sensory and emotional faculties. Since AI programs function according to external directives, there is no legal rationale for assigning them criminal liability, particularly in light of their lack of legal personality as recognized by law.

RESULTS

The research has reached a set of findings and recommendations, summarized as follows:

1. AI programs are objects capable of storing data and knowledge and can perform certain intelligent electronic functions, such as movement and communication, but lack capacities such as feeling and emotion.
2. AI programs pose various risks to individuals, including potential infringements on privacy, employment rights, healthcare, and other fundamental rights. Therefore, comprehensive legal and technical safeguards are necessary to mitigate such risks.
3. AI programs are objects under human control and, according to the criterion of necessity, lack the legal capacity to acquire rights or assume obligations.
4. The application of criminal liability rules to AI programs presents specific legal challenges. Examining general principles of criminal liability reveals that legislators assign criminal liability only to natural and juridical persons, with no provisions extending liability to a third category under general criminal accountability.

RECOMMENDATIONS

1. The study recommends enacting a specific law to regulate AI programs, assigning responsibility for their actions to their users and producers. Since these programs lack independent will, they cannot be held accountable; instead, they function as tools that humans may use for efficient, flexible, and advanced operations.
2. The study recommends against granting legal personality to AI programs, as they lack financial independence and are merely tools. Proper management and smart use of these programs can mitigate their risks while contributing to human progress in meeting essential needs.

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