CHALLENGES IN APPLYING CRIMINAL LIABILITY RULES TO UNLAWFUL ACTS COMMITTED BY ARTIFICIAL INTELLIGENCE

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Abstract

This study considers the issue of applying criminal liability to illegal activities committed through artificial intelligence (AI). It concludes that AI technologies cannot be influenced independently by manufacturers, programmers, or users due to a lack of recognition and discrimination. The research plan is divided into two parts. The first is about the concept and nature of AI, while the second studies the purpose of criminal liability arising from the use of AI. This study recommends updating the Jordanian legal basis and consolidating the legal elements of crimes related to the accusation by determining illegal activities and clarifying criminal liability against users and developers, taking into account the lack of clear legal provisions in the current law. The paper is relevant to the literature, as it will help in demystifying the criminal liability model and approach to users and developers of AI with reference to the Jordanian law.

Keywords: Artificial Intelligence, Criminal Liability, Criminal Liability Parties

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1. INTRODUCTION

Today, the world is applied to almost every aspect of everyday life, and is thus proof of an unprecedented technological revolution in the field of artificial intelligence (AI). This depends on automobiles, aircraft, medical diagnosis, financial system management, and even highly sensitive strategic management decisions. Nevertheless, this rapid advance has led to deep legal issues, especially when the actions of intellectual systems lead to illegal work that harms individuals and society.

The traditional rules of criminal liability are built on two basic elements: They are material elements represented by illegal activities and moral elements represented by knowledge and intention. Nevertheless, AI has the ability to learn and decide decisions, creating uncertainty about the possibility of assigning moral elements to it. Because AI does not have sufficient legal awareness of legal

perception, this complicates the role of lawmakers and judges, and attempts to impose such actions on criminal law provisions, particularly in the absence of clear and obvious legal texts regulating such cases.

Furthermore, when many participants participate in the design, operation, and use of intellectual systems, they can distribute responsibilities between programmers, manufacturers, operators, and users. This raises urgent questions about the need to amend criminal liability rules to adapt to the unique characteristics of the act of AI.

Therefore, this study aims to determine the concept of AI, study the issue of applying criminal liability to illegal activities related to AI, and provide recommendations relating to the facts of this vast technological revolution.

The objectives of this study are as follows:

- to study the validity of traditional rules of criminal liability in solving AI behavior;
- to determine the most important legal issues in the accounting of intellectual systems;
- to provide relevant legal decisions to overcome the flaws of current legislative structures.

The paper is very relevant to the study of law and its practice. Academically, it is important as it applies to the developing literature on AI and criminal liability, as it answers unanswered doctrinal issues regarding criminal responsibility, intent, and accountability in autonomous and semi-autonomous AI systems. The study also addresses knowledge gaps in the current theoretical understanding of the field of traditional principles of the criminal legal framework by applying critical analysis of the new AI-driven technologies in relation to the traditional research, thus providing an analytical framework that can be employed in further comparative and interdisciplinary studies.

In practical terms, the research will be of value to legislators as it indicates the weaknesses of the current criminal law systems in dealing with AI-based crimes and suggests that the legislative systems must be adaptive enough to cope with changes in technology. It is also useful to the judiciary in elucidating the interpretative issues on the application of the classical criminal liability principles, including the actus reus and mens rea, to AI systems. In this way, the study contributes to more coherent judicial decisions and their informed legal resolution when it comes to cases related to AI technologies.

The rapid development of technology in the field of AI has led to an increase in the use of these systems in various industries. The result has resulted in many legal issues related to the imposition of criminal liability for illegal activities committed using AI methods. One of the most urgent issues is determining who should be criminally liable for actions committed by AI, especially since these systems can make independent decisions without direct intervention. This issue is exacerbated by the lack of clear legal provisions regulating the sector at the national and international levels. As a result, a legal basis must be created to ensure the proper attribution of criminal liability to the prosecutor, and, therefore, to ensure its safe and proper use.

The authors aim to answer the following questions:

RQ1: To what extent can traditional rules of criminal liability apply to illegal activities committed using artificial intelligence methods?

RQ2: By law, who is responsible for the harmful behavior that results from artificial intelligence?

RQ3: Is it possible to create criminal intent when an artificial intelligence system includes illegal activities committed?

RQ4: What legal solutions can you propose to solve these problems?

The importance of conflict with the issue of applying rules of criminal liability for illegal activities related to AI in the legal difficulties arising from rapid technological development. The traditional principles of criminal liability are no longer sufficient to include actions committed by clauses that have no awareness or intention. This issue is reinforced by the lack of a clear legislative structure that regulates the accountability of these technical systems, raising serious questions regarding the decisions of criminal law officers and the creation of intent or criminal errors. These issues require serious legal revisions to balance ensuring justice with protecting the fast pace of technological advancement.

The paper is organized in the following way. Section 2 briefly reviews the theoretical background. Section 3 describes the research method used. Section 4 presents the findings regarding the nature and features of AI, analyzes its jurisprudence concerning the basic components of criminality, evaluates the attribution of criminal liability as a consequence of the application of AI, both the methodology of jurisprudence and the circumstances of criminal liability. Section 5 discusses the research results. Section 6 ends the paper with conclusions and recommendations to cover the legislative gaps in the Jordanian law on crimes related to the field of AI.

2. LITERATURE REVIEW

The recent legal literature has paid more and more attention to the problem of criminal liability due to the use of AI systems, especially given their increasing autonomy and the ability to execute complex duties. Giannini (2023) highlights that AI is disruptive to the classical principles of criminal liability because the technology is governed by algorithms and not intentionality. It brings some prevailing questions about the relevance of traditional criminal law notions applied in situations when the illegal action is carried out with the help of AI technologies.

Fahim (2024) evaluates criminal liability of AI by reviewing the challenges of applying the facets of crime (in particular, the actus reus and mens rea) to AI-driven behavior. The research points out that AI systems are not aware, intentional, and thus criminal responsibility is difficult to attribute, and existing legal doctrines should be re-examined.

In the same manner, Sachoulidou (2024) refers to the legal ambiguity of criminalizing AI systems and the issues of developers, manufacturers, users, and operators. The paper concludes that the existing

criminal law systems are ill-adapted to respond to AI-related crimes because there are no specific legal provisions that regulate autonomous systems.

Escalante-Huisacayna et al. (2025) review the current literature on the topic of AI and criminal responsibility, performed in an exhaustive systematic analysis of the literature on the subject. Their report validates the lack of a common legal practice and shows that there are serious gaps in the legislation of different jurisdictions, especially when it comes to offenses caused by autonomous AI actions.

In applied legal terms, Ellamey and Elwakad (2023) examine the criminal responsibility of AI systems and claim that the majority of the regulatory systems continue to use the models of criminal responsibility that are based on human beings, which are not adequate in dealing with crimes that are perpetrated using intelligent technologies. The paper highlights the necessity of legislative change to define the accountability mechanisms.

Although the contemporary legal literature on criminal liability associated with the use of AI is increasing, the literature, up to now, does not dwell on the actual difficulties presented by national criminal law. Specifically, the lack of a specific study of the ability of the criminal law in Jordan to deal with criminal activity through the application of AI systems is quite apparent, particularly the fact that there are no specific statutes dealing with crimes involving AI. This paper aims to fill this gap by analyzing the applicability of the conventional principles of criminal liability to AI in the context of Jordanian law and suggesting the legal resolutions to the specifics of AI-induced behavior.

3. RESEARCH METHODOLOGY

This paper has taken a descriptive-analytical legal technique to review the relevance of criminal liability to activities done under the AI system under the Jordanian legal system. The conceptual and legal framework of AI, its technical features, and its relations with the traditional principles of criminal liability were introduced and explained using the descriptive approach and discussed in modern legislation. This strategy allowed the study to describe the current doctrinal stands on the issue of the legal nature of AI and the issue it raises to traditional ideas of intent, attribution, and responsibility.

The critique of the pertinent Jordanian legal documents was critically analyzed with the application of the analytical method, namely, the Jordanian Penal Code No. 16 of 1960[1] and the Jordanian Cybercrime Law No. 17 of 2023, and other authorized laws. The discussion aimed at evaluating whether existing legal regulations can deal with criminal actions based on AI technologies, and which gaps or uncertainties in distributing the criminal liability to users, developers, or other participants may appear. Interpretation of legal provisions was done based on the formed principles of criminal law, which included the elements of the crime and the demands of criminal responsibility.

Furthermore, the research was based on the doctrinal review of current legal literature on the topic of AI and criminal responsibility, with a specific focus on the recent materials on the topic in which the authors discuss what they consider to be the responsibility of the users and developers of AI and the boundaries of establishing AI as a subject of criminal liability. Despite the fact that the research did not take a complete comparative approach, the selective use of foreign legal approaches and academic debates served to provide support to the analytical analysis of the Jordanian legal system and to point to potential legislative trends.

The study was also confined to criminal liability and not to civil liability or administrative liability unless needed to clarify the same. Further, the study concentrated on the present Jordanian legal system and did not suggest an extensive comparative study with other jurisdictions. These restrictions were embraced to have a comprehensive and narrow study of the research problem in its legal context.

4. RESEARCH FINDINGS

4.1. The nature of artificial intelligence

Artificial intelligence is one of the most prominent symptoms of modern technological revolutions, as intellectual systems are now able to perform many complex tasks. The increase in the use of Amnesty International has created deep legal issues in key sectors, to the extent that these systems are subject to criminal liability for participation in illegal activities.

The lack of will or intentions of AI creates problems with classification as criminal representatives and is one of the main factors that determine who should be responsible for their actions. In this section, to clarify the nature of AI, we first examine the concepts and characteristics of AI, and then deal with its legal character according to the criminal law regarding the fundamental elements of crime.

4.2. The concept and characteristics of artificial intelligence

Artificial intelligence consists of two periods: intelligence and artificial. The term intelligence refers to the ability to understand and respond to new situations and rapid changes. We are talking about awareness and the ability to learn. On the other hand, artificial terms refer to production or creation, and are used to designate materials invented by human intervention, in contrast to natural ones that are not dependent on human participation. Therefore, AI represents intelligence created by people and appears in machines or computer systems (Giannini, 2023).

Various definitions of AI have been proposed, but in one definition there is no legal or international consensus on one definition. Some scientists have defined it as the study of a system that can take appropriate measures to realize the environment and achieve the expected goals (El-Kady, 2025). Others describe this as a group of features that allow computers to mimic human intellectual abilities, such as thinking and training. Another definition of it indicates that this is

[1] https://www.wipo.int/wipolex/en/legislation/details/15077

the design of an intellectual system that can make appropriate decisions to achieve a particular goal (El-Kady, 2025).

Furthermore, AI was defined as the field of computer science, with concerns about how it simulates human behavior. This includes developing devices and programs that can be thought of as the human brain, which will determine how to study, think, and how to act (Escalante-Huisacayna et al., 2025).

With regard to the World Intellectual Property Organization (WIPO), we define AI. This is because it specializes in computer science, which aims to develop systems that can perform tasks that require high levels of human intelligence, with or without human intervention (Sachoulidou, 2024).

Based on the foregoing, researchers conclude that there is no scientific consensus for one exact definition of AI. However, it is desirable to establish AI systems as technological machines that are able to execute tasks that require human-like reasoning.

4.3. Artificial intelligence between legal nature and the elements of crime

Legal frameworks are the basis for determining criminal liability resulting from actions performed using AI systems that are highly capable of performing a variety of tasks. From a perspective, AI is independent of human will. It was previously impossible for an AI-equipped plane or car to operate independently, making decisions and making decisions to accommodate the external environment. This gives AI a superior corporation. Therefore, we need to determine whether AI should be classified as a person.

4.3.1. The concept of legal persons and their legal regulation

Legally, people are organizations that can receive rights and obligations. Therefore, a person's legal idea includes both people, not humans. The organization that provides corporations in accordance with the law is a corporation, whether it is a person or a corporation (Muftić, 2025).

Through the Jordanian Civil Code, Jordanian lawmakers organize regulations relating to natural corporations and legal (legal) character, clarifying rules governing each of their beginnings, ends, status, intermediaries, and capabilities (Articles 30–52 of the Jordanian Civil Code No. 43 of 1976[2]).

4.3.2. The concept of legal things and their legal regulation

If the conditions specified in accordance with the law are met, the corporation will be created. This allows the organization to acquire the rights and obligations of the bear. From a legal theoretical perspective, everything is considered an object of rights, whether important or intangible. Lawmakers organized decisions to regulate the issue through civil law (Articles 54–58 of the Jordanian Civil Code No. 43 of 1976).

Comparing the characteristics of natural organizations and corporations, we notice some similarities between things and people from an external form perspective and from the perspective of implementing different procedures. Nevertheless, it differs in its biological properties. Jordanian lawmakers, like many other legal systems, did not recognize Amnesty International as a natural person (Carpenter, 2025).

Nevertheless, there is a point of instigation between nature and AI. For example, financial and sexual responsibility are exceptional traits of natural people. Nevertheless, the Kingdom of Saudi Arabia reached a prominent precedent in 2017, providing citizenship to the international Sofia pardon robot, providing passports and legal financial status. Sofia also participated in a creative conference held in Egypt. This demonstrates the treatment of individual perceptions and legal intelligence, and as part of the state's population (Sachoulidou, 2024).

Nevertheless, AI functions independently, bringing its legal nature closer to things than natural people. Amnesty International gives a position on something that excludes it from criminal liability, as it cannot commit a crime, a crime can be the result of human conduct. Therefore, according to some legal opinions, AI should be classified as something, not as a person. So, this could be a means of crime, but not as a perpetrator of a crime (Tammenlehto & Kallio, 2025).

4.3.3. The elements of crimes arising from the use of artificial intelligence

Crimes associated with AI methods rely on the same traditional elements of crime, but acquire new aspects from the sophisticated nature of technology. These crimes require legal factors that determine the crime and its punishment. Material elements are made up of illegal activities. A moral element that reflects the intent or negligence of the offender. With increasing reliance on intellectual systems, the importance of these factors is particularly clear in areas that affect safety and confidentiality. These factors can be determined as presented in the following subsections.

The legal element

This element is designated as a principle of crime and punishment legitimacy. That is, there are no crimes and punishments without legal texts. As a result, regardless of the extent of the damages in the law, if a lawmaker is not clearly criminalized through legal provisions, it cannot be considered a crime. In this regard, Jordan's Cybercrime Law No. 17 of 2023 addresses, albeit indirectly, certain crimes linked to AI, even though the term "artificial intelligence" is not explicitly mentioned. For example, Article 15 criminalizes the dissemination of false or misleading information carried out automatically, while Article 16 criminalizes character assassination via electronic means — potentially covering AI-generated deepfake images and videos. Similarly, provisions concerning incitement to hatred or contempt of religions could apply to content produced by AI systems (Cybercrime Law No. 17 of 2023, 2023).

[2] https://www.wipo.int/wipolex/en/legislation/details/2612

When this element applies to a crime resulting from AI actions that harm others, the script will appear (Stevenson Smith, 2016). The first includes crimes caused by manufacturers, programmers, owners, users, and even external limbs. In such cases, the legal elements will be enforced if an AI company is implemented, as Article 326 of the Jordanian Criminal Code and subsequent provisions (Penal Code No. 16 of 1960 and its amendments) clearly criminalize murder and explain the punishment for it. The second scenario involves crimes caused by actions committed by AI as a result of independent development. In such cases, these actions cannot be considered criminal in accordance with the principle of crime and punishment legitimacy, as no law criminalizes actions arising from these independent organizations (Butson & Spronken-Smith, 2024).

This study argues that the legal element of AI-related crimes is not clearly defined in the current Jordanian legislation, leaving a legislative gap with respect to acts committed by intelligent systems.

The material element

A key component of criminal conduct is embodied in the adoption of laws that violate the law or refrain from enforcing the law imposed by the law. The general principle is that there is no crime without material elements, as mere ideas and intentions go beyond criminalization (Fahim, 2024). India's law[3] on criminal offences clearly does not determine any essential elements, but it can be derived from legal provisions.

The material element of a crime is made up of groups of specific elements required in the legal text, and consists of three main elements: criminal conduct, consequences, and prisoners of war. As for criminals, they represent the basis of crime and are achieved through positive actions or negligence. Positive criminal behavior is reflected in voluntary behavior such as murder, theft, and similar crimes. In the context of crimes relating to artificial arts, actions refer to actions carried out by smart systems that lead to criminal outcomes, such as the manipulation of information, damage to digital systems, or damage to individuals (Diab, 2024).

As a result, it is the second element of the material element, indicating harm to legitimate interests. Establishing criminal liability does not require any damage to a particular person if the outcome of being criminalized according to the law has already occurred (Pichat, 2024).

Causality, on the other hand, indicates the relationship between criminal conduct and its consequences. Thus, criminal activity can be related to the entity of AI, where the behavior is characterized by illegal examples of the process, where an independent driving vehicle accidentally transfers a person, or where a robot prescribed to assist a patient does not provide the necessary assistance, or harms the patient. In such cases, the law enforced by the AI system should be the cause of criminal consequences (Koulu et al., 2023).

The mental element

The spiritual element refers to the existence of a psychological relationship between the intentions of the offender in the Crime Commission and the criminal act. Depending on the nature of this connection, the mental element can take one of its intended or unintentional forms. In an intentional crime, criminal intent is achieved through the criminal's will and the knowledge to participate in actions to achieve consequences. To have criminal intent, two conditions must be met: 1) it must be knowledge and will, and 2) if a criminal is not knowledgeable about all the key elements that make up a crime, it is not possible to define criminal intent. Therefore, in order to attend to intent, the offender must know about the key elements of the crime. When it comes to will, it is not enough for criminals to participate in the action. Intent requires the will to break the law and achieve the outcome (Xu et al., 2021).

On the other hand, an unintended error is defined as a deviation in the offender's behavior from what a reasonable person would under similar circumstances. The difference is between unintended mistakes and criminal intent in will to consequences. Unintended mistakes consist of knowledge and will, the will to carry out actions without the will to achieve harmful outcomes. On the contrary, criminal intent is made up of knowledge and will, but includes the desire to fulfill an act and the desire to achieve the outcome. Therefore, the main difference depends on whether harmful consequences are intended (Swoboda & Lauwaert, 2025).

4.4. Attribution of criminal liability arising from the use of artificial intelligence

A criminal's actions that deviate from what a normal person would do in a similar scenario while using AI methods are called unintentional errors. This represents a serious legal issue of the principle of criminal liability and takes into account the ability of these systems to make independent decisions that can lead to serious and serious harm. This case sparked a large scientific debate over the possibility of criminal liability appointments if damages occurred as a result of the use of these methods. To resolve this issue, judicial methods are considered in the first section and attribute criminal liability to AI, while standards that regulate such transmission chains are studied in the second section. The distinction is in the will to consequences between innocent mistakes and criminal intent. When people make careless decisions, it's because they have the information and the desire to act, but not necessarily because they want to cause harm. In contrast, criminal intent is not just a matter of knowing what to do but also of wanting to do it with the desired result in mind. The primary distinction, then, is the intentionality of the negative outcomes.

4.4.1. First requirement: Jurisprudential approaches to attributing criminal liability to artificial intelligence

Two main jurisprudential approaches have emerged — one in favor and the other against recognizing criminal liability for the acts of AI. Their arguments can be summarized as follows.

[3] https://www.indiacode.nic.in/handle/123456789/12850?locale=en&utm_source

The opposing approach to attributing criminal liability to artificial intelligence

Proponents of this view argue that it is impossible to hold AI criminally liable, based on the following grounds:

1. *The nature of AI prevents attributing criminal liability to it.* According to this opinion, if there is no psychological relationship between a crime and a criminal, criminal liability is a key element of criminal error, criminal liability cannot be determined. However, such relationships can only be found in the case of natural people, not AI, due to the lack of will that constitutes the moral component of crime. Therefore, AI works according to instructions and programming and cannot make decisions on its own. Therefore, it is the programmer to be responsible for crimes committed by AI (Tammenlehto & Kallio, 2025).

2. *The incompatibility of punishment objectives with imposing criminal liability on AI.* Advocates of this opinion confirm that the goals of criminal penalties — general deterrence, specific deterrence, justice — cannot be achieved when a crime is committed by Amnesty International. This is due to the fact that AI has no intention to understand the nature of punishment or to inflict its material and psychological consequences. As a result, you will be subject to criminal liability for your rejection of AI (Sachoulidou, 2024).

3. *The inapplicability of most penalties to AI.* The essence of punishment lies in inflicting suffering, which AI, as a technological system, is inherently incapable of experiencing. Thus, it is inconceivable to impose traditional forms of punishment on AI (Escalante-Huisacayna et al., 2025).

The supporting approach to attributing criminal liability to artificial intelligence

Proponents of this view argue for the necessity of applying criminal liability to AI technologies by imposing appropriate penalties. Their reasoning is based on several grounds, including:

1. *Recognition of the legal personality of AI technologies.* The provision of legal personality at Amnesty International allows legal entities in similar circumstances. This is perceived as maintaining certain rights already associated with natural persons. Such a perception of legal personality must acknowledge their liability — useful and criminal — when they violate the law (Carpenter, 2025).

2. *Criminal liability is based on criminal dangerousness rather than fault.* Advocates of this approach argue that the role of will should be denied for the crime committed by AI, given that people themselves are often forced to commit illegal activities. Therefore, they reject the principle of free choice and argue that criminals (here AI) should be held liable on the basis of social risks of criminal conduct, rather than based on error (Butson & Spronken-Smith, 2024).

The opposing jurisprudential view — that rejects attributing criminal liability to AI — is deemed more logical, given the impossibility of establishing the moral element in AI-related crimes. The moral element consists of the will directed toward committing the crime, which is impossible to exist within AI systems.

4.4.2. Second requirement: Conditions for attributing criminal liability to artificial intelligence

Independent AI committees are unlikely to be possible in the future if there is no error in programming. Therefore, caution and preparation are required by establishing conditions and standards for determining criminal liability for AI methods, and by determining the types of sanctions imposed on such systems.

Conditions for establishing criminal liability for artificial intelligence

In order to establish criminal liability for AI (Lin, 2025), certain essential conditions must be met:

1. The AI entity must be capable of action, since it is equipped with programs that allow it to make decisions (Sachoulidou, 2024).

2. AI models must be capable of communicating their intentional decisions to humans. For instance, a self-driving car must be able to determine the route it will follow to transport the passenger to their destination.

3. Both the material and moral elements of crime must be present in order to attribute criminal liability to AI.

As for the foundation of criminal liability in AI-related crimes, it can arise in three distinct situations:

- *First case*: Using AI as a tool to commit a crime. In this case, criminal liability cannot be related only to means, but also to the main offender, so AI organizations are not liable for crimes. The real question here: Who is the actual criminal — a programmer or user? This is especially relevant when a programmer provides instructions to AI to meet their program that commits a particular act or crime.
- *Second case*: When the user is the offender. This applies when using the essence of AI to provide services to users. For example, users can direct AI systems to protect their property and make requests to photograph anyone approaching. If an AI kills someone, its procedure is to implement the user's order, which makes the user the main criminal offender (Escalante-Huisacayna et al., 2025).

In both cases, the material elements of crime are carried out by AI, while the moral elements are achieved by the programmer or user. Therefore, crimes are committed through AI, but criminal liability is not placed on AI itself. Because it is merely a tool in the hands of real criminals, whether they are programmers or users. Therefore, the responsibility lies with the human actor.

- *Third case*: Direct criminal liability of AI. This happens when the essence of AI functions independently from both the programmer and the user. In this case, criminal liability is directly intended with the same AI (Kan, 2024).

Criminal liability of the manufacturer, the owner or user, and artificial intelligence itself

First, manufacturers are responsible for crimes committed by AI systems as a result of defects in production that lead to crime. You need to distinguish between crimes committed intentionally

and those committed negligently (Smejkal & Kodl, 2024). In each case, fines are distinguished. Manufacturers aim to adhere to certain standards and, most importantly, ensure security and safety requirements. Not being able to observe these disasters in society that threaten public safety. Additionally, there should be frames and standards to protect consumers from commercial fraud that manufacturers can carry out (Sachoulidou, 2024).

Second, the owner is directly associated with AI systems as it is the main beneficiary of their use. Therefore, it is expected that owners will use technology for personal interests and abuse, which could lead to crime in violation of the law. Such liability can arise in the following circumstances (Carpenter, 2025).

1. If the owner's proceedings cause criminal consequences. In this case, the full responsibility lies with the owner. For example, if the owner of a car, controlling independence, has turned off the automatic control system, but she/he does not follow the necessary instructions to prevent an accident, the owner is responsible. Here, liability is classified as unintentional (Sayyed, 2024).

2. If the crime is a general procedure for other parties, such as coordinating the owner or user and the programming of the car that is independently controlled, the owner is liable for the intentional crime.

In the use of "fatal robots" in the military field, the leader who controls them is responsible. In the case of serious mistakes, they are liable for an unintended crime, but in the case of criminal intent, they are liable for an intentional crime.

Liability cannot be directly related to AI to prevent its use as an excuse for avoiding punishment. Therefore, liability may also apply to manufacturers, especially if programming is intended for criminal purposes (El-Kady, 2025).

3. Criminal liability of AI itself. If the crime is a general procedure for other parties, such as coordinating the owner or user and the programming of the car that is independently controlled, the owner is liable for the intentional crime (Diab, 2024).

Whoever commands "fatal robots" in a combat setting is ultimately accountable for their actions.

Their liability is for the unintended crime in the event of a significant mistake and the intentional crime in the event of criminal intent (Ellamey & Elwakad, 2023).

AI cannot be explicitly linked to liability in order to prevent its evasion of punishment. That being said, producers could potentially face legal consequences as well, particularly in cases where malicious code is involved.

Third, there are various penalties that can potentially be imposed on AI. These can be divided into traditional penalties for AI and proposed penalties for illegal actions committed by AI:

• Traditional penalties for AI:

a) Confiscation: If AI goes out of control and threatens societal security, committing crimes, the judge may issue a confiscation order, especially after conviction, followed by reprogramming (Muftić, 2025).

b) Dismantling AI: This preventive punishment is intended to cancel the natural person's death penalty or the activation of AI, similar to the decision of a corporation. AI can provide new memory after erasing previous memory (Fahim, 2024).

c) Suspension of AI: AI can be temporarily cancelled, preventing tasks from being performed during certain periods without affecting legal existence.

• Proposed penalties for illegal actions committed by AI:

1. *Proposed criminal penalties for programmers of AI systems*: The manufacturer or programmer is an AI manufacturer and has the ability to control the operating system that must be developed according to specific security and safety standards (Saud, 2024). These standards must be placed through laws that require manufacturers to incorporate them into AI systems and take criminal liability if not met. A manufacturer or programmer may face traditional fines, such as imprisonment, fines, confiscation, or closure, depending on the nature of the crime (Escalante-Huisacayna et al., 2025).

2. *Criminal penalties proposed to owners of AI systems*: The owner or user benefits directly from AI systems and is responsible for the crimes committed by these systems (Diab, 2024). Such crimes often arise from the negligence of the owner, such as the inability to follow the main security principles guaranteed by AI (Monga, 2023). Crimes may also arise from owner or user intervention in AI, including illegal procedures. In all cases, fines must be properly complied with for each particular offence (Giannini, 2023).

3. *Proposed criminal penalties for AI organizations*: If criminal penalties are directly imposed on AI, they are liable for crimes resulting from human action without intervention, unless the other parties are liable. These fines include:

a) Resolution, commentary, or forfeiture: The decision of an international organization to pardon is equivalent to the death penalty for traditional criminal penalties against people. This requires the constant closure of AI when it is uncontrolled and poses a threat to people and their confiscation, and transfers its property to the state (Hallevy, 2015).

b) Financial fines: A fine is the amount determined by a judge in a decision against an AI organization. The origins of AI have been attributed to the state Department of Treasury, suggesting that there are independent financial assets (Koulu et al., 2023).

Researchers conclude that the appointment of criminal liability for the use of AI requires the development of accurate legal frameworks to take into account the technical nature of these systems and ensure justice and accountability in the face of the accompanying legal problems (Kumar, 2023).

5. DISCUSSION

The findings presented in this paper show that the use of old principles of criminal liability in relation to the actions of the AI remains a legal issue, especially because there is no evident moral aspect that can be ascribed to the autonomous AI. The results affirm that AI does not possess its law awareness and criminal will and, thereby, the dogma stance that AI, as it is, cannot be a criminal subject. This finding is in line with the classical criminal law

theory that underlines intent and culpability as essential parts of liability, as put by Giannini (2023), Fahim (2024), and Hallevy (2015). The paper also confirms that the concept of AI systems should be viewed as a tool that could result in the criminal liability of human actors, including programmers, manufacturers, or users, as opposed to one that commits a crime directly.

The findings under the lens of the Jordanian legislation demonstrate that there is a significant legislation gap in dealing with crimes related to AI. Although current legal frameworks, including the Jordanian Cybercrime Law No. 17 of 2023 and the Penal Code No. 16 of 1960, offer certain protection against crimes involving technology usage, they do not specifically address the criminal activities that may be the result of autonomous AI behavior. This shortcoming resonates with the points of the comparative legal literature, especially Sachoulidou (2024), El-Kady (2025), and El-Mahrouki (2024), who affirm that the notoriously urgent change is adaptive legislative frameworks, which would be able to adapt to new AI-driven risks. The research highlights the importance of the fact that the absence of explicit statutory provisions could lead to interpretative problems on the part of the courts in applying conventional criminal concepts, including actus reus and causation, to AI-related cases, which negatively affects the legal certainty and uniformity in judicial decision-making.

When drawing the comparison of the results of the study with other international and comparative literature, a significant overlap is observed with the resources, which do not support the assumption of direct criminal responsibility of AI systems. Other authors like Tammenlehto and Kallio (2025), Carpenter (2025), Ellamey and Elwakad (2023), and Smejkal and Kodl (2024) also claim that criminal responsibility should not be removed from human agency. Simultaneously, the results can be linked to more general interdisciplinary discourses regarding the weaknesses of AI cognition and moral reasoning, as described by Messeri and Crockett (2024), Swoboda and Lauwaert (2025), Pichat (2024), and Xu et al. (2021). All these studies support the conclusion that the AI systems, despite their high level of decision-making, do not have the necessary level of epistemological and ethical ability to be blamed for a crime.

Lastly, the debate identifies the value of redistributing criminal responsibility to identifiable human participants on the basis of their levels of control, neglect, or intent with regard to AI systems. This strategy aligns with the most recent accountability models, the development of which was proposed in the literature, such as the development by Muftić (2025), Kumar (2023), Saud (2024), Monga (2023), and Diab (2024), and policy-focused studies of cybercrime and technological harm (Curtis & Oxburgh, 2022; Stevenson Smith, 2016; Koulu et al., 2023). Placing AI in the context of human-centered responsibility, the study takes a step towards making technological innovation more law-abiding and yet providing proper criminal responsibility.

6. CONCLUSION

Criminal liability in the field of AI, in addition to insufficient laws to meet the nature of this advanced technology, faces many fundamental issues related to identifying the responsible party.

The main findings of the study include observations that AI works independently instead of being directed by people. It considers its legal nature to be closer to an object than a natural person, and it is an object that denies criminal liability. AI technologies cannot be implemented regardless of the manufacturer, programmer, or user, as they do not recognize or discriminate. AI organizations are sophisticated ways to make decisions that allow them to commit criminal acts, but they cannot be held legally responsible for these measures. The reasons for the lack of accountability for the nature of AI for crimes committed by failing to predict behavior, and in some cases, the causal relationship between law and consequences cannot be determined.

This study recommends updating Jordanian legal basis to include legal elements of AI crimes and determining the criminal process and criminal liability of users and developers, given that current laws do not have any clear provisions regarding these crimes. Creating legal rules for recognizing the legal personality of AI technologies. This allows you to take criminal liability along with other parties, including conditions of awareness and understanding. We will work on creating specialized local organizations to mitigate the risks associated with AI.

A weakness of the research is that the analysis of Jordanian laws on criminal liability in relation to AI is based mainly on the review of literature rather than on the examination of real judicial cases, since very few of the published court rulings in cases involving AI are available. Furthermore, the research is based on the doctrinal legal approach, and it restricts the opportunity to evaluate the practical application of criminal liability regulations under real-life situations involving AI systems. Future studies can be improved by including comparative empirical studies and judicial practice to give a more detailed appraisal of criminal liability frameworks to be applied to AI technologies.

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