CRIMINAL RESPONSIBILITY ARISING FROM APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN THE JORDANIAN PENAL ACT

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Abstract - We are living our present days in an information revolution that has made us on the cusp of a new world in which virtual transactions prevail and an electronic crime scene that has gone beyond the limits of materialistic behavior and is characterized by its unlimited breadth when the applications of artificial intelligence and robots appear, especially since we have begun to rely on them in the many and different fields of life, all of which led to the creation of many difficulties About the nature of criminal responsibility for the actions of applications that operate with artificial intelligence, and the extent to which the criminalization texts in the Jordanian penal legislation absorb and criminalize these acts, and can the machine that operates with artificial intelligence be held accountable in the same way as a natural person? And if we accept this, is there a special type of punishment that is compatible with the nature of artificial intelligence applications? In order to achieve the desired goal of this research, it was necessary to shed light on that responsibility according to the texts of the current penal legislation and discuss it.

The research concluded with a set of findings and recommendations, the most important of which is that the development we are experiencing today in the field of artificial intelligence, which may precede human intelligence, has put us in front of an obstacle in assigning criminal responsibility to those applications for their actions that violate the law. And that what Hollywood embodied in its fictional films in our war with God and robots may become an inevitable reality in the near future, which entails the need to expedite the enactment of a legislative system to define the legal framework for criminal liability arising from the work of artificial intelligence applications.

Keywords - Criminal Responsibility, Applications, Artificial Intelligence, Jordanian Law

I. INTRODUCTION

One of the most important manifestations of information development and the most prominent of them today is artificial intelligence, as it has become the assistant to human beings in all activities, and the increase in human contact with smart applications may pose a danger resulting from errors of artificial intelligence, which creates the importance of legal adaptation that is in harmony with the nature of smart applications and development.

The tremendous and rapid technological in this. And if we go to say that artificial intelligence, no matter how high it is in mental development, is that the person who created it is responsible for operating his system, which may result in errors that constitute crimes that necessitate criminal liability, so the statement of the legal adaptation on which the criminal responsibility is based for the work of applications of artificial intelligence has become an inevitable result of the requirements of the information revolution , Especially since artificial intelligence applications assume the presence of people based on them as the maker, owner, user, and beneficiary of these applications. For the above, this study will examine this matter through two chapters, the first dealing with the definition of artificial intelligence, and the second looking at the criminal liability of artificial intelligence applications.

1.1 The problem

The problematic research stems from the increasing human contact with artificial intelligence entities, which brings us to a very important question, which is the extent of responsibility of artificial intelligence applications in the event that they commit acts that constitute crimes punishable by the penal law? This question stems from several questions, the most important of which is the extent of the adequacy of our current penal and procedural legislation in Jordan to define and regulate criminal liability for crimes of artificial intelligence? Or is there a need for legislation compatible with the advanced information age and artificial intelligence? In addition to the above questions, it is necessary to determine the responsibility of the manufacturer, programmer and owner of artificial intelligence for the crimes committed through it? And in the event that the criminal liability of artificial intelligence applications is determined, is it possible for the entities that operate with artificial intelligence to enjoy the reasons for permissibility and the impediments to punishment as is the case with a natural person?

1.2 research importance

The importance of the research comes from several aspects, the most important of which is the increase in the spread of artificial intelligence applications and their interactions with the natural person, and based on the personality of punishment and the personality of criminal responsibility, which stipulates that no person can ask about a crime that he did not commit,

and that it is necessary to determine who is the real perpetrator of the crime. The importance of the research also emerges from the difference between the nature of humans and the applications of artificial intelligence, the most famous of which are robots. The punishment of humans is legally defined and clear. If we acknowledge the responsibility of the programmer, manufacturer, or owner for the work of smart applications, what is the case if the artificial intelligence commits some crimes that are outside the programming included in it and far from any order issued by the owner? It's still just a dumb machine.

II. WHAT IS ARTIFICIAL INTELLIGENCE?

The work of programmers is in full swing to try to develop artificial intelligence to create human-like intelligence in applications that use artificial intelligence. Therefore, we find that these applications are working accurately parallel to the human being, and may even outweigh it at times, and thus these applications entered the most important areas in our lives, which are health, education, entertainment and shopping. Therefore, we will divide this topic into two requirements: -

1.2Defining artificial intelligence

Where Andrew Port believes that artificial intelligence "is a technology that performs most of the tasks that a person performs, but it is difficult to know the developments that this technology will bring in the future, in the opinion of John McCarthy, who is the spiritual father of artificial intelligence, that it is" a way to make a computer, or a computer-controlled robot, or program that thinks intelligently in the same way as intelligent humans; Artificial intelligence is achieved by studying how the human brain thinks, how humans learn, decide and act while trying to solve a problem. And we can understand the meaning of artificial intelligence that it is to make the computer, whether in the form of a machine or a robot, or anything that works with the artificial mind like a human being, especially in its interaction in the various aspects of human life through the studies conducted on humans that come out with results that we can apply in applications of artificial intelligence even Nowadays, there are increasing attempts to implant a kind of human emotion into artificial intelligence entities. There is no doubt that the human mind is the one who created and programmed artificial intelligence, despite that, artificial intelligence is not affected by any external influence, as it implements faster than humans with its limited experiences, which often do not reach the limit of man, as God Almighty has created in man special abilities that need Software is very complex, and intelligence applications are still a deaf machine that receives orders and executes them in an abstract manner without any sense, emotion or humanity.

2.2 Practical applications of artificial intelligence in the legal and judicial field

Artificial intelligence has effective roles in the legal and judicial fields, the most important of which can be summarized as follows:

2.2.1 Artificial intelligence techniques can help determine the identity of the real perpetrator of the crime using certain algorithms in revealing the mystery in any incident through the inputs and data that are entered to it.

2.2. 2 Artificial intelligence techniques can facilitate the completion of judicial tasks and the achievement of justice by examining the data provided, excluding what is forged, and determining what is real, and thus we reach the achievement of justice and equality. To the competent authorities, which are linked to artificial intelligence techniques and research at different times because the accused is present at the crime scene at that time, and if he is not like that, his presence must be indicated in another place. These operations may take only a few minutes and are faster and more accurate than the human mind

2.2.3 One of the most important practical applications in practical reality at the present time is the artificial mind, external and internal sensors, cameras and other tools that reduce many traffic accidents through alerts that the vehicle may issue, which may sometimes be compulsory for the driver to take a compulsory action, and thus these technologies can Reducing accidents and determining exactly who is responsible for the accident and who is responsible for it

3.The criminal responsibility of artificial intelligence applications

As we mentioned at the beginning of our conversation about artificial intelligence applications and the increasing expansion of their use opens the way for legal circles to ask the following question: - What is the extent of criminal liability for the actions of artificial intelligence applications, which constitute a criminal offense punishable by law, so we will divide this topic into two requirements: the first In it, we discuss the basis of criminal liability, and the second requirement, in which we learn about the criminal responsibility of those in charge of artificial intelligence applications.

1.3 The First Requirement is the Basis of Criminal Responsibility.

Criminal responsibility is what a person bears and adheres to in terms of legal effects and consequences when he commits a criminal act that is punishable by law and then the penalties or measures provided for by law are imposed on him. He is responsible for his actions from a legal point of view. Are these pillars available in artificial intelligence applications so that

they can be held criminally liable if they commit a criminal act? From our point of view, artificial intelligence applications cannot be criminally responsible, despite the development they are witnessing at the present time, but they lack awareness and freedom of choice that exist in natural humans, and therefore artificial intelligence applications cannot realize what their actions are because they have not shown until these days any capabilities to Intelligent applications are self-control and act in an absolute manner, as is the case of a natural person.

Therefore, this conversation leads us to address the elements of criminal responsibility, namely the element of perception and the element of freedom of choice. The Jordanian legislator stipulated in the Penal Code the elements of criminal responsibility in Article 74 of the Penal Code, as it stipulated that "no one shall be sentenced to his punishment unless he did the act consciously and willingly." As for the Egyptian legislator, he defined it as "perception is the person's willingness to understand the nature of his actions." Evaluate its results and the consequences of doing so1- The first requirement is the basis of criminal liability Criminal responsibility is what a person bears and adheres to in terms of legal effects and consequences when he commits a criminal act that is punishable by law and then the penalties or measures provided for by law are imposed on him. He is responsible for his actions from a legal point of view. Are these pillars available in artificial intelligence applications so that they can be held criminally liable if they commit a criminal act? From our point of view, artificial intelligence applications cannot be criminally responsible, despite the development they are witnessing at the present time, but they lack awareness and freedom of choice that exist in natural humans, and therefore artificial intelligence applications cannot realize what their actions are because they have not shown until these days any capabilities to Intelligent applications are self-control and act in an absolute manner, as is the case of a natural person. Therefore, this conversation leads us to address the elements of criminal responsibility, namely the element of perception and the element of freedom of choice. The Jordanian legislator stipulated in the Penal Code the elements of criminal responsibility in Article 74 of the Penal Code, as it stipulated that "no one shall be sentenced to his punishment unless he did the act consciously and willingly." As for the Egyptian legislator, he defined it as "perception is the person's willingness to understand the nature of his actions." Evaluate its results and the consequences of doing so It is not required to understand the actions from the abstract legal point of view, according to the rule of ignorance of the law is not considered an excuse. Perception is available to the natural person as he passes through certain age stages, and this matter cannot be available to the intelligent applications that cannot make decisions by unilateral will unless they have been programmed in a specific and specific way, and no matter how intelligent these applications are, they lack divine human comprehension. Ignorance of the law is not considered an excuse because he will work according to the orders entered for him to implement them.

As for the second element of establishing criminal responsibility, it is freedom of choice, which is the ability of a person to direct his will towards the destination he wants without exposing this will to any external influence such as moral or material coercion. From this point of view, it is not enough for criminal responsibility to establish the element of perception only, but the element of freedom of choice must be mixed with it. In short, the perpetrator of the crime is the focus of criminal accountability if he has the sinful intention based on the perception of the act and is born and born of free will. These issues are difficult to find in the applications of intelligence. And if these elements are available in the perpetrator of a crime, this can be followed by the application of the personal rule of criminal responsibility, which requires that the person who committed the act be questioned exclusively from other persons, regardless of their kinship relationship. Therefore, we find that the penal legislation has recognized in criminal accountability in two forms, the first is the criminal responsibility of the natural person, which cannot be attributed to the applications of artificial intelligence because it loses the elements of responsibility in terms of awareness and freedom of choice. As for the second form, which the penal legislation also recognized within certain limits, it is the responsibility of the legal person for his actions, which constitutes a crime according to the penal law. In this regard, it prompts us to wonder about the possibility of the emergence of a new, third form of criminal responsibility, which is the responsibility of artificial intelligence applications, whether in the form of robots, machines, vehicles, or others that operate with an artificial mind. This also stems from the following question: - Is it possible, in the not-too-distant future, for artificial intelligence applications to have a legal personality in the same way as the natural and moral human beings that bear the legal effects and consequences, especially if they reach an artificial mind that can act according to the data surrounding it and work on its own? It will keep the machines deaf, not taking responsibility, nor even being able to acquire rights. If the answer to this question is yes, then the machines will remain deaf, regardless of their level of intelligence, so who is responsible for the error of the robot that performs a surgical operation that claimed the patient's life? Who is responsible for the self-driving vehicle if it runs over a person?

2.3 The responsibility of the people based on artificial intelligence

If we concede that the applications of artificial intelligence cannot be held criminally accountable. So what is the case for the responsibility of the people based on those applications? Therefore, we will divide this requirement into two branches, the first branch discussing the responsibility of the programmer or manufacturer, and the second branch we will devote to discussing the responsibility of the owner of the application of artificial intelligence.

1.2.3 the responsibility of the programmer and the manufacturer

The programmer is the person who prepares the software to create artificial intelligence applications, meaning he is the one who injects the machine with the artificial mind with a set of algorithms that it reads and implements. If there was an error in those algorithms that resulted in a crime, then the programmer will undoubtedly be asked about that error, given that this machine is deaf, and algorithms and software were inserted into it, so the programmer will undoubtedly be asked about that error, given that this machine is deaf. A crime, and this programmer will be asked about an intentional crime if he had the evil intention of this crime and the machine was only a means for this crime. But if that intention is absent, then he will undoubtedly be held responsible for an unintentional mistake, but if he knows about the existence of the error and completes the injection of that software, anticipating the occurrence of the crime and accepting it, then his intentional responsibility is complete according to the probabilistic intent, and what is said about the responsibility of the programmer is also said about the responsibility of the manufacturer that person Responsible for manufacturing devices with a physical entity that operates with the artificial mind, so his responsibility appears in the event that there are defects in manufacturing that resulted in a criminal offense or civil compensation, and an example of that is the programmer who sells a robot as a home servant with certain software defects and he is aware of that and as a result he does this The server(the robot) kills a family member of the purchaser of this robot

2.2.3 - Owner's Responsibility

The owner means the person who owns the application that works with artificial intelligence to serve him personally, or that the application performs certain actions for the benefit of the owner, or it may provide a service to others, such as someone who owns a robot to serve him in his homework, or this owner may rent this application to others and from this point of view The owner of the application that works with artificial intelligence may commit a crime and the application is the means of committing it. Therefore, it must be proven that there is a causal relationship between the behavior of the offender (the owner) and the criminal outcome, and the application of artificial intelligence is programmed and directed according to the will of the owner. The owner of the application of artificial intelligence may expect, during the execution of its programmed commands, that he may commit a crime, and despite that, the owner proceeds to operate that application accepting the criminal result, if it occurs and welcomes it. The owner may use the application that works with artificial intelligence incorrectly, causing death or harm to people. Here, undoubtedly, the owner is asked according to the rules of unintentional criminal responsibility.

It remains to say that the application of artificial intelligence, if it becomes capable of developing its own capabilities, so that it becomes able to make self-decisions by its individual and independent will without interference from the owner or programmer, then saying that the owner or programmer will be held accountable for the actions of this application becomes contrary to justice and legal logic.

The inevitable fact is that our human societies are on the verge of a new lifestyle in which applications of artificial intelligence are the human partner in society. Hence, the criminal responsibility of this new partner must be stated. Therefore, this study came out with a set of results and recommendations as follows:

III. CONCLUSION

1. Increasing human contact with applications that operate with artificial intelligence in all aspects of life, the most important of which are health, education and marketing, which may create problems and criminal behaviors
2. The reliance of applications that run on artificial intelligence on algorithms that may have some errors. Despite this, it is in continuous development and may reach in the near future the ability to think, make decisions and implement them on their own.
3. The absence of texts in punitive laws that define the limits of criminal liability for crimes arising from applications that operate with artificial intelligence and the nature of punishment for these applications, which results in difficulty in assigning criminal responsibility to these applications and also difficulty in determining the responsibility of each of the manufacturer, programmer and owner

RECOMMENDATIONS

1. The necessity of enacting legislation that defines the parameters and limits of criminal liability for criminal acts arising from artificial intelligence applications and the punitive penalties imposed on them, especially in the event that these applications reach in the near future the ability to think, make decisions and implement them on their own.

2. The need to determine the nature of criminal liability related to those in charge of artificial intelligence applications so that it can determine who is criminally responsible for committing crimes arising from artificial intelligence applications.
3. To protect society, a technical oversight body must be established on the development of artificial intelligence applications to combat the misuse of these applications, whether by natural or legal persons.

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