THE ABILITY TO INDUCT PROVISIONS REGULATING THE CIVIL LIABILITY OF ARTIFICIAL INTELLIGENCE (ROBOTS) FOR DAMAGES BASED ON THE RULES REGULATING THE LIABILITY OF GUARDS OF THING IN THE JORDANIAN CIVIL LAW

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ABSTRACT

Technological developments, e.g., robots, have increased significantly. As a model for artificial intelligence (AI), robots can cause damages requiring compensation. However, legal challenges arise when legislators have not kept abreast of the latest technological developments. The present study sheds light on provisions regulating the civil liability of AI (robots) for damages based on rules regulating the liability of custodians of materials in the Jordanian Civil Law. At present, legislators do not acknowledge robots as a legal entity. This study presents two perspectives: i.e., the robot as a machine controlled by a guard whereby liability is shared between the robot's designer and guard, or the robot as AI-related algorithms, programs, and theories aimed at stimulating human intelligence whereby conventional legal rules are not applicable. The researchers recommend modernizing conventional legal rules that consider robots as independent legal entities and enacting legislation that fit the nature of robots and regulate their liability.

Keywords: Artificial Intelligence, Robots, Robot Guard, Civil Liability.

INTRODUCTION

The attention provided for artificial intelligence has been increasing. The legal challenges derived from AI related challenges have been increasing. Artificial intelligence is a scientific field that aims at addressing problem, and carrying out functions by robots in a manner that simulates humans' intellectual capabilities. There are problematic issues associated with the way in which the society perceives artificial intelligence and the AI technologies. AI technologies are considered essential in all areas. They can be utilized optimally to meet the intended goals without causing damages. There aren't accurate regulations that address the liability of artificial intelligence. Thus, researchers induct provisions regulating such liability from the general rules of civil liability. The latter rules fail in addressing the issues related to the liability of artificial intelligence and identifying the one considered liable and responsible for providing the compensation to the ones damaged.

Therefore, researchers must conduct research about such issues. Thus, the researchers aim to induct provisions regulating the civil liability of artificial intelligence (robots) for

damages based on the rules regulating the liability of guards of things in the Jordanian civil law. That shall contribute to resolving the problems derived from AI related development. It shall contribute to ensuring that the damaged people are provided with compensation. It's considered challenging to induct such provisions due to having numerous problematic issues in this regard.

Thus, the problem of the present study may be addressed by the specialists in the civil law. The problem of the present study is represented in inducting provisions regulating the civil liability of artificial intelligence (robots) for damages based on the rules regulating the liability of guards of things in the Jordanian civil law. It is also represented in exploring the adequacy of such rules to hold the guards of the artificial intelligence (robots) liable for the damages caused by robots to others.

Statement of the Problem

There are many technologies developments today which have positive and negative impacts on humanity. For instance, artificial intelligence (robot) is used in all areas and considered essential. It has advantages and disadvantages. Due to having damages caused by artificial intelligence (robot), compensations must be provided to the damaged ones. Thus, the problem of the present study is represented in the following:

1. There aren't regulations regulating the liability of artificial intelligence (robot). Thus, the researchers aim to induct the provisions governing such liability based on the general rules of liability in general.
2. The present study sheds a light on the refrainment of civil legislations from addressing this issue.
3. The present study sheds a light on the ability to consider the artificial intelligence (robot) as an independent legal entity based on the general rules of liability in general.
4. The present study sheds a light on the ability to consider artificial intelligence (robot) as any other thing that may be kept, because the nature of artificial intelligence (robot) differs from the nature of other machines and things.
5. The present study aims to identify the one considered liable for offering a compensation for the damages caused by the damages caused by the robot. That's because it's difficult to enforce the rules that are applicable to conventional guards to the guards of artificial intelligence (robot).

The Significance of the Study

The present study sheds a light on the ability to induct provisions regulating the civil liability of artificial intelligence; (robots), for damages based on the rules regulating the liability of guards of things in the Jordanian civil law. There is a need to shed a light on that due to the increasing use of artificial intelligence (robots). For instance, robots have replaced humans in various areas. They have become essential. However, they may cause damages. In this case, the ones damaged must be provided with compensation and the ones considered liable and obliged to pay compensation must be identified. So, the current study aims to answer the following questions:

Q1. What is the ability to consider the artificial intelligence (robot) as a legal entity?
Q2. Can one induct provisions regulating the civil liability of artificial intelligence (robots) for damages based on the rules regulating the liability of guards of things in the Jordanian civil law?
Q3. Who is the guard responsible for offering the compensation for damages?
Q4. What is the ability to consider the artificial intelligence (robot) as any other thing?

METHODOLOGY OF THE STUDY

The researchers adopted an analytical approach. They analysed the texts in the Jordanian civil law that include general rules regulating the civil liability of guards. They aim to enforce the latter rules on the liability of artificial intelligence (robot). They aimed to induct the provisions governing such liability based on the latter texts. To fulfil the aims of the study, the present study will discuss the meaning of artificial intelligence in the (first part); as the meaning of artificial intelligence and robot will be discussed in the (first section), and the ability to consider the artificial intelligence (robot) as a legal entity will be discussed in the second section. This current research will discuss the liability of the guard of artificial intelligence (robot) in the (second part). In the (first section) of this part the ability to consider artificial intelligence (robot) as any other thing will be argued, and the meaning of the guard of artificial intelligence (robot) will be discussed in the (second section). This part of research will be ended by discussion of the liability of the guard of artificial intelligence (robot) in the (third section).

First Part: The Meaning of Artificial Intelligence (Robot)

Artificial intelligence is the one of the issues searched the most by people today. It is considered as an essential thing in one's daily life. It enabled people to achieve success in many areas. Robot is an artificial intelligence model. The researchers identify the meaning of the term (artificial intelligence) and the meaning of the term (robot) as follows:

The Meaning of Artificial Intelligence and Robot

The specialized researchers in the artificial intelligence field offered several definitions for the term (artificial intelligence). The meaning of the latter term is considered vague, because there isn't one specific definition for this term. It may be defined as a *"scientific and technical field that aims at having machines that simulate human intelligence (Qamourah et al., 2018)."*

Artificial intelligence may be defined "*as a scientific field that is concerned in designing computer programs and programming in the aim of having machines that simulate human intelligence for doing tasks that should be done by humans. In simple words, it refers to the use of programs for doing human functions in a manner that simulate humans" (Ibrahim, 2012).*

Artificial intelligence may be defined as "*the ability of digital machines and computers to do functions that can be done by living things. Such function include: thinking and learning. Artificial intelligence aims at creating machines that can carry out human thinking functions in order to utilize the potentials and capabilities of such machines efficiently*" (Kathem, 2012).

Artificial intelligence aims at providing various services that can serve humanity in various areas. It aims at creating machines that can think in a distinguished manner and analyse data in order to support humans. It aims at creating machines that have perception and ability to make decisions through examining all the relevant probabilities in order to reach the intended outcomes (Ibrahim, 2012).

In terms of the meaning of (robot), there are two main definitions. On the one side; the Institute of America defines (robot) as a Robot "*reprogrammable, multifunctional manipulator designed to move material, parts, tools, or specialized devices through various programmed motions for the performance of a variety of tasks".* On the other side; the Japan Industrial Robot

Industry Association defines (robot) as "an all-purpose machine equipped with a memory device and a terminal and capable of rotation and of replacing human labor by automatic performance of movements" (Mahmoud & Ameen, 1996). Thus; the (robot) may be defined as a "*moving machine that has sensors for perceiving things and making decisions independently about what to do" (Thaher, 2006).*

Based on the aforementioned definitions, the (robot) can be defined as a computerized moving machine or instrument that enjoys artificial intelligence and interacts with the surrounding environment through programs. It can be used in various areas, such medical, industrial and military areas.

Robots are capable of learning, acquiring experiences and adapt themselves with the surrounding environment. That's because robots have AI software. However, robots are not perfect, because they may broke down or carrying out functions in a manner that's not as required. That shall cause damages.

Thus, it is necessary to shed a light on the liability derived from such damages. One may ask: Can the robot be considered as a legal entity?). What is the ability of that under the current civil laws? Such questions are addressed below:

The Ability to Consider the Artificial Intelligence (Robot) as a Legal Entity

Each one has a will has duties and rights. In this regard, there are two types of persons (i.e. natural persons and legal entity). The natural person is the human who has rights and obligations. In this regard, the law provided much attention to the natural persons through providing them with legal protection and rights and regulating their behaviours. It includes obligations to be carried out by natural persons. Thus, every good citizen (i.e. natural person) has rights, and obligations (Mustafa & Abed, 1998; Mansrour, 1998). Thus, the natural person refers to every human being who has cognition and enjoys rights has obligations to fulfil (Waleed, 2017). Thus, the natural person is considered existent since birth. It shall be considered non-existent when one dies. After death, one doesn't enjoy any right nor has any obligation to fulfill (Abas & George, 2014).

The capacity of natural person is derived from considering him/her as a legal entity. That's because every person who enjoys legal capacity has obligations and rights. Thus, every person enjoys receptive legal capacity which refers to the capacity to have rights and obligations. Once one's is born, he/she shall be enjoying receptive legal capacity and once one dies, this capacity shall be considered non-existent (Abas & George, 2014). One's capacity to exercise his rights and conclude contract is strongly connected with the presence of one's will (Ghaleb, 2020). In the light of such information, one may think of the following question: Can one consider the robot as a natural personality similar to humans because robots enjoy artificial intelligence?

Answering this question requires shedding a light on several aspects. When defining the term entity, it refers to any being that has characteristics. Being includes human, plants and animals. In simple words, it includes humans and non-humans. A personality has rights and duties. As for things, they are under the control of legal entities based on the rights determined through the law. The rights and obligations of entities are determined through the law (Filafi, 2020).

In case of acknowledging the legal entity of the robot, there shall be problematic issues faced. That is because the robot enjoys artificial intelligence. The robot is perceived by people as a machine that simulates human intelligence with having ability to think independently and avoiding risks. However, it operates based on AI programs. Thus, there is a difference between human intelligence and artificial intelligence. Thus, the legal status of robot differs from the legal status of humans. In case both of that status is considered similar, there shall be a violation against human rights.

Regardless how developed the robot is, the robot lacks free will and cognition. It doesn't have financial responsibilities not has duties to do. It doesn't enjoy rights based on the conventional legal rules.

Regarding the second type of legal entities, it's represented in legal persons (non-natural persons), such as: states and governments. In this regard, one may ask (can robot be considered as legal person)? To answer this question, there is a need for defining the term (legal person). Legal person may be defined as "*an entity consisting from a group of individuals that has a legal entity and enjoys rights. It aims at achieving interests and public benefits. It serves as an independent entity from the people constituting it. It has a name, nationality, financial responsibility and capacity. It's considered a legal entity once it's registered in the official records" (Waleed, 2017).*

Can the robot be considered a legal personality? It should be noted that the legal personality is always run by a natural person. As for robots, it is programmed to run itself by itself (Abed & Wahbah, 2012). However, there are robots that are controlled by humans (natural persons). The human controlling the robot can be held liable for the damages caused by the robot. Therefore, robots can't be considered as a legal entity.

There is a difference between the legal person and the robot enjoying AI. For instance, the legal person has a financial responsibility. Thus, robots can't be considered legal persons.

Based on the aforementioned information, robots lack will and cognition regardless of how developed they are. Thus, they can't be acknowledged as independent legal persons. The same is determined by the legislators of the current legislations and legal rules.

Consequently, there is a need to acknowledge the electronic personality of the robot in case the robot runs itself by itself without having interference by any natural person. In the latter case, the robot takes its decisions by itself. In this case, it enjoys AI and has an independent legal status. In this case, it has rights and duties. That shall lead to the rise of many problematic issues (Al-Karrar & Hussam, 2019).

Second Part: The Liability of the Guard of Artificial Intelligence (Robot)

There is a debate among the ones specialized in "*Fiqh*" liability of the artificial intelligence (robot) based on conventional theories. Thus, the present study aimed to induct provisions regulating the civil liability of artificial intelligence (robots) for damages based on the rules regulating the liability of guards of things in the Jordanian civil law.

First Section: The Ability to Consider Artificial Intelligence (Robot) as any Other Thing

Under the law, things are classified into living and non-living things. They may be classified into dangerous and non-dangerous things. They may be classified into things that move

by it and things that move through human intervention. Under the Jordanian civil law, things are classified into mechanical machines and things that require special care to avoid any damage resulting from it (Al-Thanoon & Al-Mabsooq, 2006).

The term "*thing*" in the Jordanian civil law refers to *"every tangible thing that's not alive, except for buildings (Yaseen, 2011). It may refer to every non-living tangible thing which needs special care to avoid any damage caused by it" (Anwar, 1987).*

A thing requires offering special care when keeping it due to its nature or the circumstances surrounding it. It's difficult to set accurate criteria for distinguishing between the things that require offering special care and the things that don't require that. Thus, that's determined through the discretionary authority of the judge. The things that require offering special care to avoid any damage caused by it are dangerous things or surrounding by dangerous circumstances. They can't be identified in one specific list, because there are always technological developments and inventions.

Mechanical machine refers to *"a tangible object that is used to transform a thing into another thing. It is operated through an engine. It operates without using the strength of a human or an animal (Dandoon, 2005)."* Mechanical machine refers to a machine that's provided with an engine or driving force regardless of the goal it is operated for. That applies regardless of the material of this machine. A thing is determined as a mechanical machine through the discretionary authority of the judge.

Under legislations, keeping mechanical machines doesn't require special care. The legislator suggests that robots must be provided with special care by their guards due their nature. That's also because robots require control and move by itself through an engine. Based on the general rules, robot is a machine or device that has a human form and was programmed by a natural person (Sefat & Khalil, 2014).

No one can deny that the robot has a physical presence. However, is that considered enough to enforce the provisions in article No. 291? The explanatory note suggests that the latter article sheds a light on the liabilities derived from inanimate objects which aren't capable of moving. Regarding the robot, it is an inanimate object, but it's capable of moving. The explanatory note suggests that machines can't move, unless they are moved by their owners (Ammar, 2015). That's considered one of the main features of the mechanical machines.

It is necessary to distinguish between the robots that move by it and the robots that move through the control of humans. That shall complicate the issues associated with robots-related liability. That shall hinder one from considering robots as a thing requiring special care or a mechanical machine that is governed by the latter legislative text. That is because the robot can move by itself. Thus, robots enjoy self-control and operate independently. They have full control over the inputs. Thus, they can move by themselves without guidance or control due to having special AI software. They have a human form and tangible instrument that execute the orders being administered. Such input is implemented through a device and a program.

On the other hand, robots may develop much which leads to enjoying much independence by robots. Through such independence, robots may refrain from responding to external stimuli. They shall be having the ability to practice self-learning. The actions carried out by the latter robots can't be predicted. In this regard, one asks: Is the researchers talking about a tangible machine that execute orders or about software that aims at simulating human intelligence in terms of self-learning and skill acquisition abilities? (Irfan, 2020).

Robots enjoy artificial intelligence. Thus, one is dealing with a tangible inanimate object that is moving and operates based on specific AI programs and algorithms. Such programs and algorithms aim at simulating human intelligence in terms of thinking and decision making ability and ability to interact with the surrounding environment.

From the researchers' perspective, robot is a tangible machine that aims at executing orders through the control and guidance of a human. Thus, the robot may be considered as a text. However, if the robot takes decisions by itself independently, the provisions enforced on this case must be determined carefully.

The things that need special care include the things which nature may be threatening and the things that are surrounded by dangerous circumstances. Whether the robots are things or machines, they are in need for special care. That is because robots may cause damages in case of acting in a manner that's not as intended. It is because robots may cause damages in case of having failure, damage or unexpected results. The criteria used for considering things as dangerous or not are subjective. They aren't associated with specific time, place or conditions.

Thus, robots can be dangerous and may cause major damages sometimes. Thus, they fall under the things that consider special care. When reviewing the files of the relevant cases in courts and judicial decisions, the researchers didn't find something useful for determining the nature of robots that enjoy artificial intelligence. The Jordanian courts are used to enforcing the conventional legal rules regulating the liability of guards on the liability arising from unfamiliar things. That is because the liability arising from robot's acts is still considered as a debatable issue. It is because such an issue is connected with the acceptance of the society for development.

The European Parliament issued in 2017 Civil Law Rules on Robotics. Under the latter rules, it eliminated the classification of robots as "*things*". It considers the robot as a non-human electronic representative for human. The term representative for human' indicates that human are responsible – under the law - for the errors resulting from operating the robot. So, there is a need for determining the meaning of the guard of the robots enjoying artificial intelligence as it's shown below:

Second Section: The Meaning of the Guard of Artificial Intelligence (Robot)

The guards of things are liable for the things requiring special care and mechanical machines. In order to hold the guard liable, he/she must be responsible for guarding the things. The conventional definition of (guard) is represented "anyone who has the right to dispose or control a thing" (Anwar, 1987).

Thus, guards of things are represented in having control over things and enjoying the right of disposal over things. They are responsible for preventing things form causing damages to others whether the damaged caused under their control or the control of other employees working under their supervision. Thus, owners are considered guards or guardians till having the concerned things kept by other people (Dandoon, 2005).

Thus, guarding things may be carried out by the owner, the holder, the beneficiary, or another person. However, the owners of things should be considered in first place the guards of things and enjoying the right of disposition over the things, unless the things were moved under the guardianship of others (Yaseen, 2011).

Thus, guardianship refers to having actual control over things and enforcing guidance on things and monitoring them. It involves enjoying the right of disposition over things. The one representing the guard may carrying out his functions on his behalf. The guard may be a legal personality (e.g. the government).

It is necessary to distinguish between the conventional guards and the guards of artificial intelligence (robot) which is a tangible instrument that is subjected to control, and guidance. There is also a difference between the latter guards and the guards of the robots that act independently based on programs and algorithms.

In this regard, guardianship must be based on a material element. This material element must be subjected to the control and guidance of the owner. It must be useable the owner. The moral element is represented in having personal interests by the guard of the things. Artificial intelligence (robot) is usable based on the rules that are administered in it. The guard has the power of guiding the robot and issuing orders for it. He has the power of determining the time of using it and the goals sought from using it.

The material interpretation for guidance of robots is complicated. For instance, robots may be possessed, control and disposed by a human. Human has the power to issue orders and regulations for robots. He's responsible for measuring the artificial intelligence of the robot and maintaining and fixing it. Robots enjoy artificial intelligence that have different composition. There is a difference between the guard of composition of robots (i.e. a programmer or a manufacturer) and the guard of use of robots. The robot that enjoys independence in acting and making decisions differs from the robot that doesn't enjoy that. It enjoys that due to having certain AI software. (In this regard, there are several guards of the composition, such as: digital programmer, the designer of the robot appearance, the manufacturing company, owner, operator and mediators) (Irfan, 2020).

The guard of the composition of robots may be a programmer or a manufacturer. It refers to the one who administers information into the robot and uses its software. He/she has technical and internal control over the robot. Thus, one is entitled to hold the guard of the composition liable for the damaged caused by the robot. The guard of the composition is held liable in case there is a technical defect in the robot. Thus, he shall be liable for the damages by the robot due to such a defect.

As for the guard of use of the robot, he refers to the one who uses the robot for meeting personal interests. He may be someone other than the owner. He is held liable for the damages caused by the robot he is using for meeting interests. It's difficult for the ones damaged by the robot to determine the ones to be held liable. That is because the guard of the robot may change.

Under Civil Law Rules on Robotics issued by European Parliament, robot is considered an electronic agent acting on behalf of a human. Under the latter rules, humans are held liable for the damages derived from robot's mistakes. Under the latter rules, the humans held liable may be owners, operators, manufacturers, and users.

The robots that move automatically and independently and enjoy artificial intelligence can't be considered rigid machines. When shedding a light on the latter robots, one may ask: Who is held liable if the robot is programmed to move and act based on its input and programs?. There are debates over the independence of such robots and the role of the guard in guiding such robots. That's because legislations fail in determining the ones held liable.

In this regard; according to one scholar, "the independence that the artificial intelligence motor enjoy doesn't fit with having a guard enjoying control over the robot. Through enjoying

such control the guard shall be held liable for the acts carried out by the robot (Irfan, 2020). Independence doesn't fit with the power of the guard who has control over the robot and responsible for using, and guiding the robot.

Robot is an interactive machine that responds fast and has self-control over its acts. It is capable of avoiding risks and differs from conventional machines. There isn't a direct human control over some robots, because such robots enjoy independence. Thus, the guard shall not be held liable for the damages caused by the robots.

Third Section: The Liability of the Guard of Artificial Intelligence (Robot)

The guard is held liable due to committing an act causing damage. The damage must be caused by a thing which is considered the most complex and accurate conditions for holding the guard liable. This condition is considered so in case of holding guard of the artificial intelligence (robot) liable. The damage is considered existent in case of having the robot interfering in a positive or negative manner and a causal relationship exists between the robot and the damage. In case the robot acted in a manner that is out of the control of the guard and caused damage, the robot shall be considered a thing that requires special care. In case the robot did do due to an error by the guard, the guard shall be held liable. However, in case the robot acts independently due to having specific AI software and caused damaged, the guard shall not be held liable. However, in the case the robot caused damages due to defects in structure or composition, the owner shall be held liable for the damages caused by the robot. That applies whether the designer expected such damages or not.

The designer shall be held liable in case the damage was caused by a defect in the robot. However, there must be proof indicating that there is a defect in the robot. However, providing such a proof is difficult, because many specialists still lack knowledge about robots. In case the robot caused damage due to an act of negligence carried out by the actual guard, the latter guard shall be held liable. He shall be held liable for all the damages caused by the robot. That is because the robot is considered a thing that must be provided with special care. That applies even if the guard of the robot was changed.

Based on the aforementioned information; what is the legal ground for holding the guard of the robot liable, since the robot is considered an instrument under the Jordanian law?.

In pursuant to the general rules, the guard of things is liable for the damages caused due to acts of negligence or acts involving infringement for others' rights (Shanab, 2000). In case the guard of the thing requiring special care committed such acts, the guard shall be held liable. However, if the guard proved that he didn't commit such acts, he shall not be held liable. Through providing such a proof, the casual relationship between damage and the guard's acts shall be considered non-existent .

Regarding the legislators of other laws (e.g. the Civil French Law and the other laws), they presumed the existence of a mistake committed by the guard. The guard must prove that this error wasn't committed to consider the casual relationship between damage and acts as non-existent. In other words, the latter legislators suggest that the guard must provide special care. They presume that the presence of a wrongful act when having damage (Sulaiman, 1960).

In case of applying the rule of (presuming the presence of a wrongful act) to the guard of the robot, the physical element of the crime must be existent (i.e. the wrongful act). In addition, the moral element of the crime must be existent (i.e. cognition) and the presence/absence of the

casual relationship between the wrongful act and damage must be proved. However, applying the latter rule is very hard, because it's difficult to identify the guard in charge. Is the guard of the composition or the guard of use in charge for the wrongful act? Applying the latter rule requires investigating the wrongful act and the one who did it. Then, the liability shall be assigned to the one who did the wrongful act. Applying the latter rule is hard, because some robots enjoy independence in acting. Thus, that shall hinder one from identifying the one considered liable for the damages or the one who committed the wrongful act or the act of negligence. Based on the aforementioned information, the artificial intelligence (robot) can't be considered as legal entity. Thus, it can't be held liable for the damages caused by it. It's difficult to identify the guard who is responsible for the damage caused by the artificial intelligence (robot). It's difficult to identify the one held liable for such damage because the guard of the robot changes sometimes and the ability of the guard to control the robot differ from one robot to another. All those things lead to the rise of problematic issues and make things more complicated.

Furthermore; one may ask: Can one hold the guard of the robot liable for the damages caused by it in application for the rule suggesting that one must be held liable for the consequences of his actions? The latter rule suggests that one should be held liable for the consequences of his action, whether the action is considered legitimate or not. Applying this rule means that the guard of the robot shall be held liable for all the damages ceased by the robot. However, the one who benefits from the robot is the beneficiary not the guard. Thus, the latter rule can't be applied to the guard of the robot (Waheed, 1978).

Based on the aforementioned information, the guard can't get rid of the liability assigned to him in case of enforcing the rule of (presuming the presence of a wrongful act) on him. That applies, unless the damage is caused by another reason. In case the reason is unknown, the guard shall be held liable.

That can be applied theoretically when considering the robot as a thing that is controlled actually by the guard. The robots enjoy independent artificial intelligence. However, the legislator can't acknowledge the legal entity of the robot as a natural or legal person. Thus, he can't hold the robot liable for its acts. The conventional legal rules that apply to the guard of things can't be applied when having damaged caused by the robot. That is because such rules aren't consistent with the nature of robots and their artificial intelligence. For instance, there are robots that enjoy independency in terms of making decisions and capable of practicing self-learning. Thus, the acts of the latter robots can't be predicted nor controlled. Thus, the guard shall not be capable of enforcing full control over the robot. That shall lead to the rise of many problems. Holding the guard of the robot liable for all the damages resulting from the robot's errors isn't logical. That is because the robot includes programs and algorithms which may include a defect leading to the commitment of mistakes by the robots. It's difficult to identify the ones responsible for having such a defect. It's difficult to identify the way the robot shall act based on such programs and algorithms. Thus, the conventional legal rules can't be applied in this regard. Therefore, more effort must be exerted to change the legislations in a manner that keeps up with the latest developments in the field of artificial intelligence and robots.

CONCLUSION

The current study aimed to explore the ability to induct provisions regulating the civil liability of artificial intelligence (robots) for damages based on the rules regulating the liability of

guards of things in the Jordanian civil law. It aimed to shed a light on this issue due to the challenges associated with technological developments. Through conducting the present study, the researchers concluded the following results:

1. Artificial intelligence is a field that allows researchers to design robots that include computer programs that are capable of doing functions in a manner that simulates human functions, intelligence and abilities to think and learn
2. Robots refer to a computerized moving machines that enjoy artificial intelligence and capable of responding to the inputs and interacting with the surrounding environment through AI programs.
3. Under the conventional legislations and rules, the legal entity of the robot can't be acknowledged. That is because the robot doesn't enjoy cognition nor will.
4. Robots are considered things that require special care. They execute functions and orders under the control and guidance of humans. Some software makes the robot independent in terms of acting and making decisions. It differs from the other machines that are fully control by humans.
5. The rules that apply to the conventional guard of things to guard of the artificial intelligence (robot). That applies unless one perceives the robot as a thing that is useable and subjected to the control and guidance of natural persons. It should be noted that there is a difference between the guard of composition of robots and the guard of use of robots.
6. In case of enforcing the conventional legal rules of the Jordanian civil law to the guard of robot, the guard of robot is held liable in case of carry out acts involving infringement for others' rights. The counterpart laws presume that the guard of the robot committed a wrongful act once the damage is existent.
7. The guard of the robot can't be held liable. That is because one can't identify the ones responsible for causing the damage or the ones who committed a wrongful act, infringement or negligence.
8. There is a rule suggesting that one should be held liable for the consequences of his action. This rule can't be applied to the guard of robot. That is because one held liable is the beneficiary (i.e. the one who benefit from the robot) not the guard.
9. The current civil legislations aren't adequate for regulating the issues related to the liability arising from the damages caused by artificial intelligence (robot). That is because the conventional legal rules don't fit with the issues related to artificial intelligence (robot) due to the different nature of robots from other things. For instance, robots can practice self-learning practices and make decisions.

To sum up, and at the end of this research, the researchers put on the table of the policymakers the following recommendation as follow:

1. Acknowledging the legal entity of robots in a manner that fits with the nature of robots. Robots must have financial responsibility under the law in order to hold this entity liable for any damages caused by it.
2. Amending the civil legislations, especially the civil legislations regulating the liability of the guard of things. That should be done to keep up with the latest technological developments. It should be done to ensure that all the people who incurred damages are provided with a compensation
3. Set a code for regulating the liability arising from any potential damage that is ceased by robots

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