



What is the legal personality of artificial intelligence in Jordanian law

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ABSTRACT

Artificial intelligence is one of the most advanced fields in the modern era, and it has proven its efficiency in many fields such as medicine, education, business, industry, transportation, and others. Artificial intelligence aims to understand the nature of human intelligence, by creating computer programs capable of simulating human behavior characterized by intelligence, so that the computer can make independent decisions without referring to its user.

There is no doubt that granting artificial intelligence a legal personality means granting it an independent legal status, enjoying rights, such as the right to an independent financial entity, the right to a name, as well as intellectual property rights, and also bearing obligations and responsibilities, such as the obligation to compensate for damages resulting from its illegal actions, and this is the subject of our research that focuses on the nature of the legal personality of artificial intelligence.

Keywords:

Artificial intelligence, legal personality, robot

Introduction.

Artificial intelligence has become (AI) The topic of the era, and the focus of global interest, due to its multiple uses in all educational, medical, military and service fields, and its applications and technologies have become the most advanced and fastest spreading types of technology, due to the luxury and achievements it provides to humanity, and despite the advantages that these technologies provide, in return they raise and even carry within them many disadvantages and resentments that threaten individuals, societies and even humanity as a whole, especially if the necessary legal and ethical controls are not put in place for this technology and this development, as the rapid developments in the field of artificial

intelligence constitute a major determinant to confront its new developments in terms of legislation and organization (Al-Harthi, Al-Daroubi, 2025).

For a period of time, legal personality has been limited to the natural person (human), as he is capable of acquiring rights and bearing obligations. However, this idea is no longer limited to the human being, but rather this personality has extended to include legal entities, such as companies, institutions, and others. Given the characteristics of artificial intelligence that distinguish it from other machines and things, the dispute over the legal personality of artificial intelligence has intensified between multiple opinions and trends (Karim, 2022).

The importance of the topic lies in studying the legal personality of artificial intelligence within the field of legal studies, which contributes seriously to creating a new culture and knowledge, and providing a vision of the future in light of modern technological developments, due to the importance of artificial intelligence at the present time, especially since there are many considerations and challenges that appear when talking about the issue of what is the legal personality of artificial intelligence as a human or non-legal entity, as we do not forget the rapid developments that may lead us to the emergence of an independent entity that is not subject to human control and has no owner or operator.

To understand this, we decided to answer the following question: To what extent is it possible to grant artificial intelligence an independent legal personality, recognize all the rights related to legal personality, and burden it with all the obligations associated with it?

This study aims to define artificial intelligence and its origins, address the definition of legal personality and its types, and address...The extent of recognition of the legal personality of artificial intelligence.

To study this topic, we decided to divide the study into an introduction and three chapters. The first chapter dealt with the nature of artificial intelligence and its origins, and in the second chapter we addressed...What is legal personality and its types? While in the third section we discussed the extent of recognition of the legal personality of artificial intelligence, and the study concluded with a set of results.

In studying this topic, we adopted a scientific and analytical approach in order to understand the topic and reach its results.

Chapter One: The nature of artificial intelligence and its origins.

Artificial intelligence is a branch of computer science, and one of the basic pillars on which the technology industry relies in the modern era. It was founded on the assumption that the faculty of intelligence can be described accurately, to the extent that the machine can simulate it (Al-Sheikh, 2016). Artificial intelligence aims for the computer to simulate

the intelligence processes that take place inside the human mind, so that the computer can solve problems and make decisions in a logical manner, and in the same way as the human mind (Mahmoud, 2020). To understand this, we divided this topic into two requirements as follows: -

The first requirement: the emergence of artificial intelligence.

The scientist Jabir ibn Hayyan was the first to predict the creation of robots in the eighth century AD. He was the first to predict this, and even determined the degree of variation in the power of artificial intelligence, as he predicted the possibility of humans creating humans and animals. His prophecy was expected to come true for about ten centuries, with the arrival of the first industrial revolution (Al-Sharairi, 2022).

The idea of artificial intelligence dates back to before the advent of the computer in 1770, when a Hungarian invented a machine that played chess with high intelligence. It was a statue wearing Ottoman clothing, sitting in front of a box containing gears and mechanical mechanisms that controlled its movement. It was called the Turk, and it quickly began to challenge people, and gained great fame and toured Europe and America (Al-Muslim, 2018).

Artificial intelligence is the product of 2000 years of philosophy, theories of perception and learning, and 400 years of mathematics that led to the development of theories of logic, probability and computing. Therefore, artificial intelligence is the result of efforts in linguistics that embodied the structure and meanings of language, and the progress of computer science and its applications, which made it a clear and indisputable fact (Othmaniya, 2019). The use of artificial intelligence has become widespread in various fields, such as industrial fields, as it enhances efficiency and productivity, as well as in educational fields by improving learning methods and enhancing educational experiences. In addition, artificial intelligence is used in the military field for multiple purposes, and it is of great importance in technical and medical fields, as it contributes to the development of new technologies and improving health care, which shows the

diversity of its applications and its impact on various aspects of life (Al-Harthi, Al-Daroubi, 2025).

The term artificial intelligence (Artificial Intelligence) is one of the modern terms that officially appeared in the scientific arena in 1956, at the Dartmouth Conference (Dartmouth University, USA) (Al-Harthi, Al-Daroubi, 2025), and this phenomenon reached its peak in 2010, as electronics began to accelerate significantly, thanks to the great boom in the use of electronic data, this data contributed to enhancing the efficiency of devices and modern communication technologies, which led to a radical transformation in the way information is exchanged (Badr, 2022).

The second requirement: defining artificial intelligence.

Artificial intelligence is defined as "a branch of computer science that seeks to understand the application of technology based on computer simulation of human intelligence traits" (Jamal, 2022), and it is said to be "a scientific development whereby it has become possible to make the machine perform tasks that fall within the scope of human intelligence, such as learning, logic, self-correction, and self-programming" (Abdul Sattar, 2021).

Artificial intelligence is also defined as "an information system that has intellectual capabilities similar to those of humans, or it is a computer application or machine that performs the operations performed by human intelligence" (Al-Madaawy, 2021).

Some have defined artificial intelligence as "the ability to represent computer models of a field of life, determine the basic relationships between its elements, and then create reactions that are appropriate to the events and situations of this field. Artificial intelligence is thus linked first to representing a computer model of a field, then retrieving and developing it, and secondly to comparing it with the situations and events of the research field to reach useful conclusions (Al-Sheikh, 2016).

Through the previous definitions, it can be said that artificial intelligence is "one of the modern computer sciences that seeks advanced methods to program it to perform tasks and conclusions similar to the methods attributed to

human intelligence, by understanding the complex mental processes that the human mind performs during thinking and then translating them into equivalent mathematical processes, which increases the computer's ability to solve complex processes."

Chapter Two: The nature of legal personality and its types.

Legal personality is the capacity to acquire rights and bear obligations. It is originally established for the natural person, i.e. the human being, as he is capable of acquiring rights and bearing obligations. However, the legislator also recognized groups of funds or people as having a legal personality, so they are called legal or moral persons, in consideration of certain practical and economic necessities. To clarify this, we have divided this topic into two requirements:

The first requirement: defining legal personality.

Legal personality is defined as "everything to which rights and obligations can be attributed, and those rights are such as property rights, legal rights, and obligations such as duties or debt, and can be attributed to a specific person or entity, meaning that every right or obligation is considered linked to that person or entity, and is legally questioned or held accountable for it, and it is also defined as every being to whom a right can be attributed negatively or positively (Atiya, Rammal, 2024).

A legal personality is defined as "those entities to which legal effects are directed, or it is every being to which a right can be attributed, whether it is the positive party, i.e. the owner of the right, or the negative party, i.e. the debtor or the one obligated to respect it" (Karim, 2022).

The legal personality has undergone successive and consecutive developments in form or type, based on the development of the needs of society. Whoever was previously deprived of enjoying the legal personality, has in the current era become part of its legal components (Al-Harthi, Al-Daroubi, 2025).

Acquiring legal personality is very important, especially in terms of acquiring financial rights and bearing obligations, because starting from acquiring legal personality, a person acquires an independent financial entity,

in accordance with the personal theory that goes that there is no financial entity without the presence of a legal person on whom it is based. Legal personality is the capacity to acquire rights and bear obligations, and thus it is a legal description intended for anyone who is qualified to acquire rights and bear obligations, and that personality, as it is proven for a natural person, can be proven for a legal or corporate person (Abdullah, Abdul Rahman, 2001).

The second requirement: Types of legal personality.

A person in the language of law is either natural, such as a human being, or legal, such as companies, institutions, etc. Therefore, this personality entails recognition and enjoys legal guarantee or protection. In light of this, the following can be explained:

First: The natural person: A natural person is a human being who acquires legal personality from his birth, and it remains attached to him until his death. As long as he is alive, he has acquired his legal status in society. The legal capacity of a natural person can be divided according to what is stated in Islamic jurisprudence and Jordanian civil legislation, according to the text of Article (30/1) of the Civil Code: "A human being's personality begins with his full live birth and ends with his death." Jordanian Civil Code of 1976 and its amendments), and eligibility is divided into two parts (Al-Dajjah, 2024).

1. Capacity for obligation: It is the capacity granted to a person from the moment of his birth, and ends with his death. It is the person's eligibility to acquire rights and bear duties. It is the person's eligibility to receive rights and bear obligations determined by law. It is related to legal personality and is not linked to will. It is proven to a person even if he is a fetus in the mother's womb, as is the right to inheritance and will, which is proven legally from the moment of his birth until his death (Al-Dajjah, 2024). However, this capacity alone does not grant him the eligibility to practice the actions that earn the right and bear the obligation, especially since it is not coupled with the eligibility to perform.

The capacity for obligation in Islamic jurisprudence is "the eligibility of a person to have legitimate rights due to him and against him" (Al-Omari, 2018). The capacity for obligation is not limited to a natural person, but rather applies to a legal person whenever he enjoys that capacity, in accordance with what is required by regulations and laws, such as duly registered companies, based on the text of Article (51) of the Jordanian Civil Code, which states: "1- A legal person enjoys all rights, except those that are inherent in the natural human capacity, within the limits determined by law. 2- He shall have: A- An independent financial entity. B- Capacity within the limits specified by the instrument of its establishment, or those determined by law. C- The right to litigate. D- An independent domicile, and his domicile shall be considered the place where his administrative center is located. Companies whose main headquarters are abroad and have activity in the Hashemite Kingdom of Jordan, their administrative center shall be considered, in relation to domestic law, the place where the local administration is located. 3- He shall have someone to represent him in expressing his will (Jordanian Civil Code of 1976 and its amendments).

2. Capacity to perform: This capacity is linked to the element of perception or discrimination, and means the person's eligibility to practice actions that achieve a gain for him, or impose an obligation or duty on him, according to the text of Article (116), which states: "Every person is qualified to contract unless his capacity is taken away or limited by law." Jordanian Civil Code of 1976 and its amendments).

It is the person's capacity to act on his will, which leads to the occurrence of effects, so the actions of a person of full legal capacity are considered legally valid, whether they are harmful or beneficial, with the exception of the invalidity of the actions of a person of incompetence (a child under the age of seven) and of a person of partial legal capacity (a boy who has reached the age of seven but is not yet of age), as beneficial actions are valid, while harmful actions are internal, and those that are

between harmful and beneficial are subject to invalidation in the interest of the minor, as in sales and rental contracts (Al-Dajjah, 2024).

The capacity to perform is defined as "the person's eligibility to exercise the right, and also the person's eligibility to issue a legal act in a manner that is legally recognized" (Al-Sanhouri, 2001).

Second: A legal or moral person is "a group of persons and funds that aim to achieve a specific purpose, and the law recognizes its legal personality to the extent necessary to achieve that purpose. The legislator grants it that legal corporate status so that it can exercise rights and undertake duties in order to achieve its goals" (Karim, 2022).

A legal or moral person acquires personality by virtue of the text of the law, even though it is not a natural person. Thus, legal personality is not limited to humans only, with the difference in the rights enjoyed by a natural person, individually, such as in inheritance or will rights, or even political rights and others (Saadoun, 2021).

Accordingly, the legal entity assumes legal recognition through the recognition granted by the legislator by registering it in official records and registers that grant it a license to practice its activity, and thus it becomes an existing and recognized entity, and in return its term ends according to the cases specified in the legislation, such as in the completion of the purpose, liquidation, agreement, or the issuance of a judicial ruling (Al-Dajjah, 2024).

The legal entity has an advantage over the natural person, in that it possesses both the capacity to be obligated and the capacity to perform from the moment of its establishment within the limits of the purpose of its establishment specified in the articles of association under the legal umbrella.

The third topic: The extent of recognition of the legal personality of artificial intelligence.

Artificial intelligence has several characteristics, the most important of which are: independence in decision-making, as well as the ability to learn on its own, and to deal with others (Hassan, 2023). Therefore, the opinion has tended towards the necessity of amending the legal organization to include

artificial intelligence, and granting it legal personality, in comparison to the legal personality enjoyed by a legal person, in consideration of practical and economic considerations and necessities. The issue of recognizing the legal personality of artificial intelligence systems faces intense jurisprudential and legislative controversy, between supporters of this idea and opponents. To clarify this, we have divided this topic into two requirements as follows: -

The first requirement: Recognition of the legal personality of artificial intelligence.

There have been many calls to grant legal personality to artificial intelligence, whether implicitly or explicitly, and thus have the ability to acquire rights and bear obligations. These calls assume that artificial intelligence systems approach human qualities in a way that gives them the right to similar recognition before the law (Al-Sayed, 2021).

The proponents of these calls based their opinion on the fact that the proximity of artificial intelligence systems and the indistinguishability between them and humans makes them deserving of a legal status similar to that of natural persons (Hassan, 2023).

Although companies have a legal personality, they exercise rights directly, but through their legal representative, and this role can undoubtedly be assigned to the robot's representative during registration, taking into account that the more the robot's ability to make decisions individually and independently increases, the more its responsibility increases (Sayhoud, 2021).

The legal personality of the robot is legally distinct from the legal personality granted by law to legal persons, such as companies and institutions. On the other hand, the robot will be granted automatic, not human, self-thinking, which justifies granting it independent financial liability (Sayhoud, 2021).

One aspect of jurisprudence suggests measuring the independent financial status of legal persons, and their ability to pay compensation for robots and smart systems. This gives them financial assets such as the market value of robot programs, databases, revenues from their use, profits from their sale

and independence. These things are considered financial assets that justify granting them a legal personality, such as companies and institutions with an independent financial status. (Thunder, 2022).

This trend was based on the recommendation of the European Parliament, which issued a decision on February 16, 2017, requesting the European Commission in Brussels to submit a proposal on civil law rules related to robots, in order to create a special legal framework to regulate the civil liability of autonomous intelligent robotic systems, as it called on the Commission to "recognize a special legal personality for robots, so that the most advanced autonomous robots can be treated as responsible electronic persons, provided that such electronic personality is limited to the robot capable of making an independent decision, and which can interact independently with others" (Al-Sahli, 2022).

There is no doubt that the characteristics and features of artificial intelligence machines, such as self-learning, the ability to store information and data, independence in decision-making, and adaptation to the surrounding environment, as well as the ability to create and innovate, all of these characteristics and features were the motivation behind the confidence of the European legislator to grant them legal personality (Hassan, 2023).

The idea of recognizing the legal personality of artificial intelligence still seems like a fantasy far from reality, however it has been partially implemented in the US state of Nevada, where robots were recognized with some powers of legal personality, by including them in a special registry created for that purpose. Also, a financial liability was allocated to robots for the purpose of insuring them, which automatically allows them to respond to compensation claims filed against them due to the damages they cause to others in their environment (Ben Tariya, Shahida, 2018).

Recognizing the legal personality of artificial intelligence at the present time poses a great danger, because it will lead to producers and users of artificial intelligence technologies evading their responsibilities, and accordingly

the scope of damages resulting from artificial intelligence will expand without the existence of a fair legal mechanism to compensate those harmed by its risks.

The European Parliament recommended that the person responsible for artificial intelligence issue a mandatory insurance policy, linked to an insurance fund for each robot or independent artificial intelligence, the aim of which is to insure others against the robot's independent and unexpected actions and decisions, which result in harm to others. The Parliament also recommended the necessity of imposing taxes on strong independent artificial intelligence for the benefit of the labor and industrial sectors that may be harmed by the use of artificial intelligence systems (Al-Sahli, 2022).

For example, South Korea was the first country to introduce a "robot tax" in 2017, fearing that a large portion of its workforce would be replaced by automation (Sayhoud, 2021).

A guarantee fund can also be created to compensate those harmed by the use of artificial intelligence systems (Nasakh, 2020).

Legal personality is granted to a robot if it has independence in decision-making and is able to interact with others. There is no doubt that granting legal personality to artificial intelligence is done for the purpose of meeting practical requirements, as is the case with the legal personality of companies and institutions (Sayhoud, 2021).

It is also possible that every robot or machine based on artificial intelligence will have the right to a code number, including the name, surname, and identification number, in addition to the necessity of having a black box inside it, containing all the information, data, and algorithms that feed it, and the mechanisms and methods of its learning, and determining the degree of its independence. Also, independent artificial intelligence systems will have a special financial liability, funded by the parties contributing to and benefiting from it (Al-Sahli, 2022).

Based on the above, it can be said that the goal of granting legal personality to artificial intelligence systems is to give it an appropriate

legal status, resulting from the interaction of the machine with humans, in order to recognize the rights and obligations that make it a natural person. Therefore, artificial intelligence must be granted rights that are commensurate with its needs and nature, at the present time, as granting artificial intelligence a legal personality depends on considering it an entity that possesses a will independent of humans.

The second requirement: not recognizing the legal personality of artificial intelligence.

In their view, artificial intelligence is inanimate objects, and not intelligent enough to match humans. Robots are just objects that require special care from their owner to prevent harm, and their keeper is asked about any harm resulting from their operation in a hypothetical manner without the need to prove the error. It is also possible to seek help and inspiration from the responsibility of animals, and thus the owner of the robot in artificial intelligence, as well as the animal, is responsible for the damages it causes to a third party, without the need to create an independent personality of its own (Sayhoud, 2021).

Hence, the robot remains legally not responsible for its actions, but remains under the responsibility of the human being. Accordingly, there is no independent legal personality for artificial intelligence yet. Despite the presence of a degree of independence, all its actions remain of human origin, and its actions are the result of that external will, not its free will, so it does not exist in reality (Hassan, 2023).

Some believe that the step of recognizing the legal personality of artificial intelligence, especially robots, is a dangerous step for several reasons, including: that such recognition would entail the irresponsibility of users and producers of artificial intelligence systems, and their negligence in manufacturing or using those systems, in addition to the fact that benefiting from such systems does not necessarily require granting them legal personality, nor will we be facing unreal legal personalities (Nasakh, 2020).

Accordingly, it is difficult to separate the error of artificial intelligence systems from the error of its operator or user, as it is difficult to

estimate the behavior of the intelligent system alone, in addition to the fact that its ability to learn and operate independently is linked to the person who operates it (Ben Tariya, Shahida, 2018).

Thus, artificial intelligence does not enjoy complete independence, because it always needs human intervention in the event of any technical problem (Daryal, 2022), and the natural person enjoys many rights and privileges by virtue of which he is recognized as a legal personality, such as name, domicile, status, and capacity, and the legal person also enjoys many rights, except for what was attached to the natural person, such as independent financial status, the right to litigate, domicile, and all the rights and privileges of the natural and legal person, which are difficult to provide in artificial intelligence (Fath Al-Bab, 2021), especially those rights that were attached to the natural person, the human being.

What makes us think about the possibility of granting artificial intelligence a legal personality is that the goal of this legal personality is not to grant artificial intelligence full human rights, but rather to determine the person responsible for any harm that may occur (Lotfi, 2021), as recognizing a legal personality for artificial intelligence like a natural person is considered a violation of human rights, and granting rights and obligations reflects this personality, but artificial intelligence cannot be considered a legal person because it does not have an independent financial entity, but rather is managed by natural persons (Bounasser, 2023).

Recognizing the legal personality of artificial intelligence is an unrestricted idea, as it does not contribute to facilitating compensation for those affected, as long as it does not have financial liability (Abdul Latif, 2021).

Conclusion.

The nature of legal personality is one of the most important legal issues and problems related to artificial intelligence, due to the legal issues it raises. Saying that artificial intelligence can be granted an independent legal personality results in it acquiring independent legal rights,

similar to other legal persons, such as the right to nationality, financial independence, and capacity. Therefore, after presenting the nature of the legal personality of artificial intelligence, we reached a number of results and recommendations, which we present below: -

Results.

1. There is no unified definition of artificial intelligence, given its nature and the multiplicity of its systems, technologies and fields.
2. Technological development has led to the innovation and manufacture of smart machines that have the advantage of artificial intelligence, which intervene in many fields, such as industry, trade, education, medicine, and even in the field of services.
3. We have come to the conclusion that artificial intelligence is a mobile manufactured machine that includes an intelligent system according to the principles of electronics science, with the ability to think, learn, and make independent decisions about what to do in different environments.
4. Artificial intelligence, with its various applications and uses, is the backbone of daily life in the modern era, as it affects the human race in its present and future. It has become an indispensable tangible reality, in light of the tremendous technological development witnessed by the world as a whole, as computers are relied upon in the most minute details of daily life through the information and technology revolution used by various categories of people around the world.
5. A legal person is an entity that can enjoy rights and bear obligations. Legal personality is not linked to human status, but rather the legislator grants it to any entity, whenever practical necessities and requirements call for it, and whenever that entity is fit to acquire rights and bear obligations.
6. Practical necessities require granting artificial intelligence legal personality, given its characteristics that are close to human characteristics, including acting

independently of humans, the ability to make decisions, self-learning, the ability to interact with others, and adapt to the surrounding environment.

7. Granting legal personality to artificial intelligence is a distant matter at the present time, but it could constitute a future solution. Today, there is no choice but to resort to other solutions, the most important of which is the mandatory insurance system.

Recommendations.

1. The need for international solidarity to establish legal and ethical foundations and standards that regulate smart industries, their development and uses, in order to reduce the risks resulting from them.
2. Granting legal personality to AI requires a complete legal structure that accommodates the full rights of an autonomous intelligent person.
3. The necessity of establishing a special fund to compensate for damages resulting from the use of artificial intelligence systems. This fund will be financed by the producers or owners of these systems, by deducting a certain percentage of the price of selling or using these systems.

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