



THE LEGAL PERSONALITY OF INTELLIGENT ROBOTS: BETWEEN EXISTENCE AND NON-EXISTENCE

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Abstract:

The current global development has led to the emergence of a Fourth Industrial Revolution, primarily based on artificial intelligence systems. This has led to numerous applications, the most important of which are intelligent robots. Undoubtedly, their entry into various fields has raised many legal issues. The treatment of these robots is one of the issues that has led legal scholars to consider the possibility of granting them legal personality, either by including them among recognized legal entities or by assigning them new legal rules, thus recognizing them as a distinct category. This proposal has received support from some legal entities while facing opposition from others.

Keywords: legal personality, artificial intelligence systems, intelligent robots, autonomy, deep learning.

INTRODUCTION:

The world has seen several industrial revolutions, and the Fourth Industrial Revolution is one of the most significant currently taking place. At this moment, it seems that the human intellect has surpassed all previous notions and limitations. Not only has it overcome difficulties and provided the means for a decent living through the manufacture of traditional machines, but it has also challenged the status quo. This reflects the noble saying that “only those who have knowledge fear God”. Human thought has reached the creation of a new kind of intelligence known as artificial intelligence, where computer programs and machines can simulate human intelligence by collecting, processing and interpreting data and interacting with their environment due to a degree of autonomy that allows them to make decisions without human intervention.

This means that this era is characterised by artificial intelligence, which has penetrated various fields and taken on many applications, including intelligent robots, which have invaded various areas of industrial, commercial, medical, scientific, educational, domestic and other areas of life.

While this development represents an astonishing innovation and a great achievement in the scientific field, it represents a leap in the legal field that goes beyond existing legal rules and raises numerous questions, the most important of which is the legal nature of these intelligent robots and the possibility of them enjoying legal personality, especially since this concept includes both natural and legal persons in the legal field.

This leads to the research question: to what extent can intelligent robots enjoy legal personality?

Answering this question requires the use of several methodologies, mainly descriptive, analytical and comparative. In order to integrate the descriptive and analytical approaches, both have been used, by examining the information and facts related to this issue and analysing its various components, by referring to scientific opinions and to the legal texts governing legal personality, in order to measure the possibility of applying these principles to intelligent robots. The comparative method has also been used, relying on the most recent working papers of the relevant legal bodies, in particular those of the European Parliament, in order to find a solution to the research problem.

Consequently, the achievement of the objectives of this research requires a dual approach, divided into two main sections: the first focuses on the study of the general determinants of the legal personality of intelligent robots, and the second addresses the legal personality of intelligent robots between opposition and support.

CHAPTER ONE: DEFINING THE CONCEPTS RELATED TO THE CORE ISSUE

Studying the legal personality of intelligent robots requires understanding the origin of the issue, connecting the new with the existing. This can only be achieved by examining the concept of legal personality (First Requirement) and subsequently studying the meaning of intelligent robots (Second Requirement). This connection allows for a discussion of the research problem.

First Requirement: The Concept of Legal Personality

Legal personality refers to the capacity or ability of a person to acquire rights and bear obligations¹. It is the potential for an individual to be a rights holder or bearer of a duty. Notably, legal personality is a legal term that necessitates defining who possesses it, distinguishing between two coherent opposites or, more accurately, two terms that sometimes carry synonymous meanings and at other times an implicit meaning: "person" and "human."

Presenting these two terms for discussion raises a profound dialectical philosophical issue between two divergent disciplines, merging philosophy with law. The term "person," outside the realm of legal studies, typically refers only to a natural being with tangible physical existence. However, in the legal field, it is no longer limited to humans, even though it was initially exclusive to them. The association of legal personality with humanity was natural, given that society at the time could not conceive of anything else. Nevertheless, modern developments have changed this, and the attribute of humanity in its philosophical foundation has become separate from the legal notion of personality. Legal personality is a legal construct designed to address certain legal issues, applicable to both natural persons (humans) and legal entities (corporate or moral persons).

In legal language, therefore, it is wrong to confuse the terms "person" and "human"; they are not synonymous. This is supported by the perspective of ancient law, which did not recognise legal personality for all individuals. For example, Roman law did not grant legal personality to slaves; although a slave is a human being, he was not considered a legal person, but rather a thing or a tool used by others to fulfil their purposes. Similarly, the legal system in some countries, such as France, denied legal personality to certain individuals through the so-called civil death system, which resulted in the loss of legal personality of individuals sentenced to life imprisonment, hard labour or exile, thus depriving them of their rights².

English law, as summarised by Blackstone, did not grant legal personality to married women³, considering them to be subordinate to their husbands on marriage, which resulted in their identity being merged with that of their husbands. However, as societies evolved, the abolition of slavery and the abolition of the civil death penalty allowed modern legislation to recognise the legal personality of individuals regardless of their sex, religion, skin colour, language, ethnicity, and so on. Moreover, this recognition was not limited to human beings, but extended to other entities that social developments in the early 19th century had made necessary. The emergence of trade unions, professional associations and economic enterprises created an urgent need for a legal status that defined their rights and obligations, which led to the creation of legal entities and gave them independent legal personality.

It is worth noting that the legal personality of an individual begins at birth and ceases at death, as the Algerian legislator explicitly states in Article 25 of the Civil Code⁴.

¹- Nabil Ibrahim Saad, Introduction to Law, Mansha'at Al-Ma'arif, Alexandria, 2001, p. 135.

²- Mohamed Said Jafour, Introduction to Legal Sciences, Vol. 2, Lessons in the Theory of Rights, 1st ed., Dar Houma, Algeria, 2011, p. 282.

³- English law summarizes (Blackstone's) stating that: "The husband and wife are one person, and that person is the husband." Refer to Mohsen Mohamed Al-Khabani, Legal Regulation of Artificial Intelligence: A Descriptive Analytical Study within the Framework of UAE and European Civil Legislation, Dar Al-Nahda Al-Ilmiyya, UAE, 2023, p. 111.

⁴- Order No. 75-58 dated Ramadan 20, 1395 (September 26, 1975) including the amended and supplemented Algerian Civil Code, Official Gazette, No. 78, issued on September 30, 1975.

The legal personality of legal entities, which consist of groups of persons or assets and which have as their object the achievement of specific objectives which cannot be attained by any one person alone because of his or her limited capabilities or because the time required to attain such objectives exceeds his or her life expectancy⁵, depends on the existence of certain elements and conditions which enable them to be recognised by the competent authority by the necessary legal means⁶.

While legal personality has traditionally encompassed both natural and legal persons, it is noteworthy that modern trends in Western jurisprudence have extended this concept to include other entities, such as animals. Some legal scholars are attempting to confer legal personality on animals on the basis of their self-awareness, complex abilities and certain intelligence, as well as their capacity to experience emotions such as fear and joy⁷. In addition, the legislation of some countries, such as the US Animal Welfare Act, imposes certain obligations on individuals in relation to animals and prohibits harm under civil and criminal liability, thereby recognising some aspects of legal personality for animals⁸.

Despite this jurisprudential and legislative trend towards animal protection, the judiciary has rightly refused to confer legal personality on animals, asserting that animals can only be objects of rights. This protection has been established primarily for economic and humanitarian reasons, in order to ensure their welfare in the face of the mistreatment they often suffer at the hands of humans. Consequently, the obligations arising from this protection fall on humans, and any legal action for breach of these obligations is brought in the name of the human who suffers emotional distress or harm as a result of such treatment⁹.

One of the most significant cases in this realm is that of the chimpanzee (Tommy), adjudicated by the New York Court of Appeals in 2013. The case revolved around the imprisonment of the chimpanzee in a zoo, which sparked outrage among animal rights advocates who demanded his release and immediate transfer to a suitable location, arguing for his legal personality based on his essential traits of autonomy, awareness, and intelligence.

Despite these arguments, the New York Supreme Court issued a ruling in December 2014 rejecting the case. The court recognized the impossibility of acknowledging legal personality for the chimpanzee due to its inability to bear legal responsibility for its actions, in addition to lacking legal capacity. The legal personality granted to non-human entities, such as states and corporations, is justified and should not extend to animals.

In 2015, a similar case was presented and ruled upon by the New York Supreme Court, which again dismissed the claim for the aforementioned reasons, relying on the precedent set by the case of the chimpanzee (Tommy), which could not be overturned.

From this, it is observed that the concept of personality currently transcends the physical existence of legal entities, extending beyond the material being of humans to include the material existence of non-humans, while still considering the particularities and nature of this personality¹⁰.

Section Two: The Concept of Intelligent Robots The proliferation of the Fourth Industrial Revolution has led to the emergence of artificial intelligence systems in various forms, both embodied and unembodied. Intelligent robots belong to the first category. Given their novelty in the legal field, it is necessary to

⁵- Ramadan Abu Saoud, *The Mediator in Explaining the Introduction to the Civil Code*, Al-Dar Al-Jami'iyya, Beirut, 1983, p. 318.

⁶- Mohamed Al-Saghir Baali, *Introduction to Legal Sciences, Theory of Law, Theory of Rights*, Dar Al-Uloom, 2006, p. 162.

⁷- Amira Badawi Najm, *Ethics of Artificial Intelligence in Light of UNESCO Recommendations*, Dar Al-Fikr Al-Jami'i, Alexandria, 1st ed., 2024, p. 88.

⁸- Sohm-Bourgeois (Anne-Marie), "The Personification of Animals: A Temptation to Resist," *Dalloz Doctrine, Legislation Recitals*, 1990, p. 33 and following.

⁹- Abdul Majid Za'alani, *Introduction to the Study of Law, General Theory of Rights*, Dar Houma, 2011, p. 84.

¹⁰- Mohamed Irfan Al-Khatib, *The Legal Status of Robots - Personality and Responsibility: A Comparative Fundamental Study*, Kuwait International Law College Journal, Vol. 6, No. 04, Serial No. 24, Rabi' Al-Awwal - Rabi' Al-Thani 1440 H - December 2018, pp. 106-107.

address their concept, first by examining the etymology of the term (subsection one) and then by defining it (subsection two).

Section One: The Origin of the Word

“Robot” The word “robot” is an Arabised word derived from the Czech word “robota”, which means forced labour or compulsory labour. The credit for the existence of the term “robot” goes to Josef Čapek, the brother of the playwright Karel Čapek. He first used it in 1920 in his famous play “R.U.R. (Rossum’s Universal Robots)”, in which a character named Rossum, a brilliant engineer, creates a large number of robots to perform arduous or dangerous tasks that cannot be done by humans¹¹. Three robots were used as slaves in factories.

It is noteworthy that the term “robot” was translated by the writer Muhammad Taha Muhammad in 1983 at the request of the Kuwaiti Ministry of Information, clarifying that it refers to a mechanical man or humanoid machine, indicating a device that is driven by an internal mechanism and mimics the movements of a human or living being¹².

Additionally, the science concerned with the study of robots is called robotics, a term attributed to the science fiction writer Isaac Asimov¹³. This designation emerged in 1941 when he first published a short story titled “Liar” in *Amazing Stories* magazine¹⁴.

Moreover, Isaac Asimov formulated the famous Three Laws of Robotics¹⁵, which were clearly outlined in his 1942 science fiction short story “Runaround.” He later included the aforementioned stories in his renowned collection titled “I, Robot,” published in 1950, which was adapted into a film in 2004 bearing the same title¹⁶.

Section Two: Definition of Intelligent Robots

The electronic dictionary (la rousse) defines a robot as “an automated device capable of interacting with objects or performing operations according to a fixed or modifiable programme”¹⁷. The Grand Dictionary defines it as “a versatile, programmable automatic machine that possesses the mechanical flexibility, adaptability, and independence necessary to perform various tasks”.

The Merriam-Webster Dictionary offers several definitions, including “a machine that resembles a human being and performs complex tasks such as walking and talking”. It also describes it as “a similar machine

¹¹- Neil M. Richard and William D. Smart, “How Should the Law Think About Robots?” *Robot Law*, Cheltenham, Edward Elgar Publishing, 2016, p. 5.

¹²- Ahmed Mukhtar Omar, *Dictionary of Contemporary Arabic*, 1st ed., 2008, p. 130.

¹³- Isaac Asimov, American author of Russian origin, served as a professor of biochemistry at Boston University.

¹⁴- Mohsen Mohamed Al-Khabani, previous reference, p. 91.

¹⁵- South Korea used the guidelines established by the American-Russian science fiction writer Isaac Asimov in 2007 to draft an ethics charter for robots aimed at defining the ethical principles guiding the roles and functions of robots. However, the Korean government did not publicly announce it, despite being one of the countries with major leading companies in robotics. Refer to Amr Taha Badawi Mohamed, *The Legal System for Intelligent Robots Equipped with Artificial Intelligence Technology (United Arab Emirates as a Model): A Comparative Analytical Study of the Civil Law Rules for Robots Issued by the European Union in 2017 and the Draft Ethics Charter for Robots in Korea*, *Journal of Legal and Economic Studies*, Faculty of Law, Cairo University, 2020, pp. 9, 26.

¹⁶- Omar Malallah Al-Muhammadi, *The Legal Nature of Intelligent Robots: A Comparative Analytical Study*, *Researcher Journal for Legal Sciences*, Vol. 4, No. 1, 1st ed., June 2023, p. 236.

¹⁷- French Dictionary, Larousse, “Robot,” online: a robot as “an automatic device capable of manipulating objects or executing operations according to a fixed or modifiable program.” <http://www.larousse.fr/encyclopedie/divers/robot/88768>

- <https://www.merriam-webster.com/dictionary/robot>. Accessed 22-03-2024 at 18:00.



that is fictional and does not possess human emotions, operates automatically, and performs repetitive tasks guided by mechanical controls¹⁸.

Although the term “human-like robot” is used in Arabic to refer to intelligent robots, the majority of scholars who hold this view prefer the second term because the first term is limited to humanoid robots consisting of a body, head, arms and legs. This is contrary to reality, which highlights the existence of many robots in different forms. This point has been emphasised by the European Parliament, when establishing the civil law rules on robots, which noted the need to consider flexibility in the definition of robots in order to ensure that the definition does not hinder technological progress¹⁹.

The widespread proliferation of robots has prompted legal scholars to attempt to address them by establishing definitions that clarify their intended meaning²⁰. These definitions rely on their distinguishing characteristics. Some scholars define robots as “machines capable of perceiving complex things and making appropriate decisions.” Others describe them as “devices capable of learning and adapting to changes in different environments.” Another definition characterizes them as “an electronically programmed machine based on artificial intelligence, capable of making appropriate decisions in various surrounding environments and conditions.”

In addition, some define robots as “interactive intelligent machines that are reprogrammable, characterised by flexibility, autonomy and the ability to adapt to their external environment, with the ability to perform various tasks that require a high level of intelligence and the ability to simulate human behaviour through self-learning”.

Others define them by their mode of operation²¹, considering them to be “mechanical machines capable of performing pre-programmed tasks under direct human command or through signals from computer programs”.

While these definitions are legal in nature, it is noteworthy that some specialised institutions in the field of robotics have attempted to define what is meant by robots. For example, the American Robotics Institute defines a robot as “a reprogrammable, multifunctional manipulator designed to move materials, parts, tools, or special devices through various programmed motions to perform various tasks”²².

The Japanese Industrial Robot Association defines it as “a general-purpose machine equipped with limbs and a memory device designed to perform a predetermined sequence of movements. It is able to rotate and replace human labour through automatic performance”²³.

It is clear that the two previous definitions share common features, but differ in others. The common aspects are that the robot is a machine or a mobile manipulator, and both indicate its ability to perform various movements automatically, i.e. it is self-moving. They also share the objective of performing multiple functions, which is emphasised in the American Institute’s definition by the phrase “performing diverse tasks”, while the Japanese Association uses the term “general-purpose”.

Despite these points of agreement, there are differences with regard to reprogrammability. While the American Institute emphasises this aspect, the Japanese definition does not necessarily require it, as it aims to include manual manipulators operated and controlled by human labour. Furthermore, unlike the American Institute’s definition, the Japanese definition does not require programming, but limits itself to a

¹⁸- Amr Taha Badawi Mohamed, previous reference, p. 26.

¹⁹- Amira Badawi Najm, *Tort Liability for Damages from Robotic Surgeries (A Forward-Looking Analytical Study)*, Dar Al-Fikr Al-Jami'i, Alexandria, 1st ed., 2024, p. 28.

²⁰- Safwat Salama, Khalil Abu Qura, *Greetings of the Age of Robots and Their Ethics*, Emirates Center for Strategic Studies and Research, No. 196, 1st ed., Abu Dhabi, 2014, p. 12.

²¹- Same reference, p. 245.

²²- Abdullah Said Abdullah Al-Wali, *Civil Liability for Damages from Emirati AI Applications: A Comparative Analytical Study*, Dar Al-Nahda Al-Arabiya, Egypt, Dar Al-Nahda Al-Ilmiyya, UAE, 2021, p. 258.

²³- Safwat Salama, Khalil Abu Qura, *Greetings of the Age of Robots and Their Ethics*, Emirates Center for Strategic Studies and Research, No. 196, 1st ed., Abu Dhabi, 2014, p. 12.



memory device, in order to include manipulators that operate in fixed sequences that would be difficult to change without reconfiguring their memory systems.

In addition to these two definitions, a 2005 United Nations report proposes a general definition of a robot as “a reprogrammable device that operates in a semi-autonomous, completely independent manner to perform manufacturing operations (industrial robots) or to provide useful services for human welfare (service robots)”²⁴.

Similarly, the International Federation of Robotics (IFR)²⁵ defines it as “a programmable mechanism that operates in two or more axes with a degree of autonomy, moving within its environment to perform required tasks”.

It should be noted that the definition proposed by the United Nations, as well as that of the International Federation of Robotics, is very similar to that of the American Robotics Institute, particularly with regard to the requirement of reprogrammability. However, they differ in adding a fundamental characteristic of intelligent robots: autonomy. This distinction distinguishes traditional robots from intelligent robots, as the former are linked to the concept of automation, while the latter are based on artificial intelligence. Automation allows a machine or electronic application to operate according to a pre-defined programme without the ability to deviate from its programming, whereas artificial intelligence is broader in that it mimics human behaviour and interacts with situations in unpredictable and non-predefined ways due to its inherent autonomy²⁶.

Consequently, intelligent robots possess numerous traits that set them apart from traditional machines, which is why they are not included within that category. They have the capacity to move voluntarily and make independent decisions from their manufacturer, programmer, or user, thanks to the deep learning capabilities that enable them to perceive their external environment and distinguish surrounding conditions.

It is noteworthy that Korean law has taken the initiative by defining intelligent robots in Article Two as “mechanical tools that perceive their external environment, distinguish conditions, and move voluntarily.” This stance diverges from the legislation of most countries, which, despite their interest in robotics, have not addressed the definition of robots, leaving the matter to specialists in the field. This is due to the technical nature of the term on one hand, and the diversity and variety of intelligent robots in terms of form and function on the other, making their definition a very precise matter. Thus, the annex to the EU’s decision on civil law rules for robots emphasized the necessity of establishing a common European definition that addresses various categories of intelligent robots, including definitions for their subcategories, while considering the inclusion of several elements in the definition. These elements primarily refer to the characteristics of intelligent robots, which encompass the ability to gain autonomy through sensors or data exchange with the surrounding environment and its analysis, the ability to learn from experience and interaction, the physical form or structure of the robot, and the potential to be influenced by its environment²⁷.

From the above, intelligent robots can be defined as: “self-programming machines capable of performing various tasks, with the ability to understand objects, communicate with humans and each other, and learn from their environment, which helps them make independent decisions based on their experience”.

Section Two: The Legal Personality of Intelligent Robots Between Opposition and Support

The widespread emergence of intelligent robots, driven by the Fourth Industrial Revolution based primarily on the use of artificial intelligence systems, has raised a complex legal issue regarding the addition of a new category of legal persons beyond the previously recognized categories of natural persons and legal

²⁴- Amira Badawi Najm, *Tort Liability for Damages from Robotic Surgeries*, previous reference, p. 29.

²⁵- International Federation of Robotics. Refer to Amr Taha Badawi Mohamed, previous reference, p. 26.

²⁶- Omar Malallah Al-Muhammadi, previous reference, p. 241.

²⁷- Amr Taha Badawi Mohamed, previous reference, p. 28.



entities. Legal opinions on this matter have divided into two main directions, which is also reflected in legislative approaches. Accordingly, this section will address the legal stance on the personality of intelligent robots (Subsection One), followed by the legislative positions on the matter (Subsection Two).

Subsection One: The Legal Stance on the Personality of Intelligent Robots

Legal scholars have disagreed regarding the legal personality of intelligent robots. Some have rejected this concept (Subsection One), while others have supported it with arguments that highlight their views and reinforce their positions (Subsection Two).

Subsection One: The Opposing View on Granting Legal Personality to Robots

Some legal scholars have refused to grant legal personality to intelligent robots, arguing that the individuals recognized by law as having legal personality are limited to the known categories of legal persons, namely natural and legal persons. Therefore, they cannot be treated as natural persons or legal entities.

The perspective against equating robots with natural persons is based on various arguments, the most important of which is that treating them as natural persons would imply recognising them with the rights and obligations associated with human status, such as the right to dignity and citizenship. This would inevitably violate human rights and be in stark contradiction with the Universal Declaration of Human Rights and the Charter of Fundamental Rights of the European Union, which restrict natural rights, i.e. human rights or rights inherent in personality, to natural persons²⁸.

Thus, this legal perspective highlights the irrationality of treating intelligent robots as natural persons, arguing that this issue is not based on interest calculations or numerical assessments, but rather on ethical principles and those related to human dignity, which a robot could claim as an equal to humans.

Moreover, the opposition does not stop at rejecting the treatment of intelligent robots as natural persons; some scholars also refuse to equate them with legal persons due to the fact that intelligent robots, possessing the characteristic of autonomy, are not subject to the direction of those who manufactured, programmed, or developed them. They manage themselves independently, unlike legal entities, which are subject to the direction of the individuals they represent²⁹.

This legal perspective advocates for the initial use of this type of robot to be restricted to technically qualified companies capable of bearing the financial and technical responsibilities that arise from their use.

The refusal to grant legal personality to intelligent robots, in comparison to known legal persons, extends to denying recognition of their independent legal personality as an independent entity due to their classification as objects requiring special care from their owners. Granting such personality would relieve the guardian of their presumed responsibility to compensate affected parties for damages caused by intelligent robots, shifting this burden onto the robots themselves, despite their lack of awareness and free will, and their absence of financial liability.

Supporters of this legal viewpoint assert that placing responsibility on intelligent robots constitutes an injustice to affected parties, as they would be unable to obtain compensation for damages sustained. The primary outcome of granting legal personality to robots would be their financial liability, a matter that continues to provoke much debate among researchers questioning the source of this financial liability, which they argue cannot be the intelligent robot itself but rather one of the participants in the manufacturing, programming, or development process.

This makes the link between legal responsibility and legal personality questionable; not everyone with legal personality is legally responsible. This is evident in the case of persons with mental disabilities, who are natural persons with legal personality, but are not considered to be responsible. However, legal responsibility does not disappear; it is transferred to the person responsible for them.

²⁸- Abdullah Said Abdullah Al-Wali, previous reference, p. 262.

²⁹- Khaled Mamdouh Ibrahim, *The Legal Regulation of Artificial Intelligence*, Dar Al-Fikr Al-Jami'i, Alexandria, 1st ed., 2021, p. 183.



Given that the problems arising from damage caused by intelligent robots can be resolved by the establishment of a compulsory system of insurance for incidents involving robots and the creation of special funds to cover their damage, similar to a supplementary insurance system in the absence of cover, there is no need to grant them legal personality or to require them to insure themselves against risks³⁰.

Moreover, recognising the legal personality of intelligent robots and acknowledging their liability would have the effect of exonerating potentially liable parties, such as manufacturers, programmers and developers, which would be likely to reduce their commitment to manufacturing, programming and development. Therefore, this legal perspective considers such recognition to be premature, claiming that the current reality demonstrates that intelligent robots are not sufficiently independent to warrant a specific legal status allowing for the recognition of legal personality³¹.

Despite this opposition to the recognition of legal personality to robots, it should not be forgotten that their unique characteristics require the recognition of a functional or technical capacity that allows them to perform tasks and enter into contracts³², especially given that the legal status of intelligent robots and the recognition of their legal personality will inevitably become necessary as their autonomy increases.

Subsection Two: The Supportive View on Granting Legal Personality to Robots

In contrast to the previous perspective³³, some legal scholars argue that there is a need to grant legal personality to intelligent robots, particularly since the aim is to enable the defence of this personality in the broadest possible sense, while at the same time placing the robot in an appropriate legal position resulting from the machine's interaction with humans.

Although proponents of this view are in favour of giving robots legal personality, they disagree as to whether this should be similar to that of natural persons, similar to that of legal persons, or whether a new category should be created that is distinct from the existing ones.

While some scholars consider artificial intelligence technologies, particularly intelligent robots, to be equivalent to natural persons and argue for their recognition as human legal persons because of their abilities to cooperate and coexist with others, this argument is not entirely valid. Humans are natural beings, made of flesh and blood, with emotions that robots do not have.

In response to the criticism of the first viewpoint, another faction insists on equating intelligent robots with legal entities, such as companies and associations, and treating them in a manner consistent with their characteristics and nature. They propose that robots should be registered in a public register, similar to the commercial register for companies, so that they acquire legal personality upon registration, especially since they possess several characteristics that enable them to simulate human intelligence, in particular autonomy and the ability to learn independently³⁴.

Given the difficulties of applying the legal personality rules established for legal entities and those specific to natural persons to intelligent robots³⁵, some legal scholars call for the need to find a legal personality that corresponds to this new entity, referred to as "electronic person," which would have its own distinct identity compared to the known categories of legal persons, namely natural and legal persons. Some legal

³⁰- Mohamed Ahmed Al-Madaawi Abdul Rabih Mujahid, *Civil Liability for Artificial Intelligence Robots: A Comparative Study*, Legal Journal, a specialized journal in legal studies and research, Cairo University, 2021, p. 308.


³¹- G. Courtois, *Intelligent Robots and Responsibility: What Regimes, What Perspectives*, Dalloz, No. 6, June 2016, p. 287.

³²- Amira Hussein Jasim, previous reference. p. 801.

³³- Taken from Amira Abdul Hussein Jasim, *The Legal Personality of Intelligent Robots*, Journal of Sustainable Studies, Vol. 5, No. 4, 2023, p. 797.

³⁴- Youssef Islam, *Civil Liability and Artificial Intelligence: What Solution?*, International Forum titled *Artificial Intelligence: A New Challenge for Law?* held on November 27-28, 2018, Special Issue, Annals of Algiers University 1, No. 07, 2018, p. 233.

³⁵- Amira Badawi Najm, *Ethics of Artificial Intelligence in Light of UNESCO Recommendations*. Dar Al-Fikr Al-Jami'i, Alexandria, 1st ed., 2024, p. 87.



scholars use the term “digital personality,” while others refer to it as “virtual legal personality,” distinguishing this term from “electronic personality,” which is more closely related to technical considerations than legal ones. The first term represents a legal presumption arising from practical necessities, assuming that robots possess a legal personality commensurate with their actions and dealings with others, depending on their independence in carrying them out. This aims to ensure their rights and impose the responsibilities resulting from their actions toward others. Thus, the legal personality of robots is a legal innovation aimed at keeping pace with the evolution of artificial intelligence and its implications, making legal adaptation unavoidable.

In view of the difficulties of applying the rules of legal personality established for legal persons and those specific to natural persons to intelligent robots, some legal scholars argue that it is necessary to find a legal personality corresponding to this new entity, called the “electronic person”, which would have its own identity distinct from the known categories of legal persons, namely natural persons and legal persons. Some legal scholars use the term “digital personality”, while others refer to it as “virtual legal personality”, distinguishing this term from “electronic personality”, which is more related to technical considerations than to legal ones. The first term represents a legal presumption arising from practical necessities, which assumes that robots have a legal personality commensurate with their actions and relations with others, depending on their independence in carrying them out. The aim is to guarantee their rights and to impose on them the responsibilities arising from their actions towards others. The legal personality of robots is thus a legal innovation aimed at keeping pace with the development of artificial intelligence and its implications, making legal adaptation inevitable.

Proponents of this view base their argument for granting legal personality to a third entity that is neither natural nor legal on artificial intelligence systems, with intelligent robots being a material embodiment of these systems. This perspective is supported by various considerations, including social factors, characteristics related to robots, and the need for legal recognition. The social considerations mainly concern the social role that intelligent robots play in practical life, as they have infiltrated various fields and, due to their inherent characteristics, are capable of operating and making decisions independently without human intervention, whether that person is their designer, manufacturer, developer or programmer

As for the legal necessity, it is known that this need can shift paradigms. Just as it was once a reason for granting legal personality to legal entities, it will similarly intervene again to grant legal personality to intelligent robots, regardless of any other conditions or considerations, and whether that entity possesses human-like qualities or not.

Subsection Two: The Legislative Position on the Legal Personality of Intelligent Robots

The ongoing debate regarding the recognition of legal personality for intelligent robots has reflected in the legislative arena, with a clear divergence in positions among legislations—some supporting this recognition, while others remain silent and unresponsive. This section will first delineate the stance of Western legislations on the legal personality of intelligent robots (Subsection One), followed by the position of Arab legislations on the matter (Subsection Two).

Subsection One: The Position of Western Legislations on the Legal Personality of Intelligent Robots

Western legislators, such as those in China, Japan and South Korea, are moving towards re-evaluating the legal classification of machines based on artificial intelligence systems in general, and intelligent robots in particular, distinguishing them from the concept of inanimate objects and giving them a new legal status out of legal necessity and anticipation of future developments in this field³⁶.

While the above-mentioned laws were pioneers in this field, it is worth noting that European legislators began to address this issue in the twentieth century. In 2015, the European Commission set up a working group to study the legal issues related to the development of robotics and artificial intelligence in the

³⁶- Mohamed Irfan Al-Khatib, *The Legal Status of Robots*, previous reference. p. 108.



European Union³⁷, in particular with regard to civil law. The specialised team held numerous meetings between May 2015 and September 2016, during which they listened to the opinions of academics and legal experts in the field. The results of this work culminated in May 2016, when the European Research Centre published a foresight study on the ethical aspects of issues related to artificial intelligence and humanoid robots, clarifying its position on several legal issues related to these robots, in particular their legal status in European society.

Six months later, on January 16, 2017, the European Parliament adopted a report known as “Mady Delvaux,³⁸” titled the European Rules in Civil Law for Humanoid Robots. This report called for the establishment of legal rules to regulate the operations of robots and artificial intelligence in the context of civil artificial exploitation, aiming to ensure the highest possible standards for this purpose. The decision emphasized the need to address various ethical, economic, social, and legal aspects related to the functioning of these entities within European society, including the determination of the legal status of robots and the reality of their legal personality. The European legislator also highlighted the necessity of granting electronic personality to robots in accordance with their needs and the demands of these entities for protection rather than rights.

Among the issues the report called for discussion was the establishment of a common European definition for categories of intelligent and autonomous robots and the creation of an artificial registration system for the most advanced robots, wherein all relevant information about them would be recorded. It also proposed a specific civil liability system for damages caused by these robots due to their actions, along with an insurance system covering potential risks arising from them³⁹.

The European legislator has thus adopted an approach similar to that of other Western legislators⁴⁰. Given the unique characteristics of robots that distinguish them from traditional machines - such as their ability to interact with their environment, make independent decisions and possess self-learning capabilities - it is necessary to give them their own legal personality. This is not only to protect them, but also to protect society from irrational and illegal uses of these robots⁴¹.

In summary, the European Parliament recognised the need to grant legal personality to a specific category of robots, namely the most advanced or autonomous robots that operate on the basis of deep learning concepts, make independent decisions and act independently in their interactions with others. It pointed out that the granting of this legal personality to intelligent robots, classified as electronic personality, should be in line with their needs and nature, but not in terms of separation from humans - at least not for the time being. Rather, it is placed in the context of protection. Consequently, the aim of examining the legal personality of intelligent robots is not to establish an independent will for them apart from humans, but to provide protection and define the parameters of their operation, especially since certain types of deep learning robots have the potential to make decisions. Their degree of autonomy implies a level of reasoning that goes beyond their programmed framework, necessitating a focus on artificial consciousness rather than mere artificial intelligence.

This perspective is reinforced by the European legislator’s intention to treat robots uniquely, through the establishment of a new theory of civil liability for the damages they cause. The legislator does not classify robots as mere objects; rather, it begins to establish the status of an electronic person with full legal

³⁷- Nathalie Maximin, *Towards European Civil Law Rules Applicable to Robots*, Dalloz Actualité, March 1, 2017, p. 17.

³⁸- The report was named after parliamentarian Mady Delvaux and was adopted by a majority of 396 after 123 opposed and 85 abstained from voting.

³⁹- Amira Abdul Hussein Jasim, previous reference, p. 795.

⁴⁰- Mohamed Irfan Al-Khatib, previous reference, p. 99.

⁴¹- Amira Badawi Najm, *Ethics of Artificial Intelligence in Light of UNESCO Recommendations* previous reference. p. 89.

capacity, who would possess citizenship and independent financial liability, thereby being held accountable for their actions under civil and criminal laws⁴².

While this is the position of the European Parliament, it is noteworthy that the European Economic and Social Council, according to some, rejected in its opinion published on May 31, 2017, the granting of legal personality to intelligent robots due to the unacceptable moral risks associated with this recognition⁴³. From its perspective, such recognition would undermine the essence of civil liability law and create ethical risks in its use. However, some believe that the Council did not outright reject it but preferred to replace the term “legal personality” with “subordinate personality,” viewing it as a legal means to ensure a logical and gradual development of these machines. Thus, according to them, the Council did not reject the granting of legal personality to robots but rather opposed granting them an independent legal personality separate from human will, as evidenced by the term “subordinate person,” where the word “person” (human) is emphasized. In this way, the intelligent robot is treated similarly to a living being without awareness, akin to a non-rational human.

It is also noteworthy that in the Directive on Civil Liability for Artificial Intelligence of October 20, 2020, the European legislator reversed its previous position. After calling for the creation of a special legal status for robots in its earlier 2017 decision, exploring the possibility of granting them the status of electronic persons responsible for repairing the damage they cause and applying electronic personality in cases where they make independent decisions, it confirmed in 2020 that there was no need for a complete overhaul of the liability rules. Instead, it opted to incorporate some concepts related to artificial intelligence into existing legal frameworks and rules, while ensuring that they are updated to keep pace with the concept of artificial intelligence. In Articles 6 and 7 of the Directive, it confirmed that there was no justification for granting legal personality to artificial intelligence systems⁴⁴.

Similarly, the Parliamentary Office for Scientific and Technological Choices of the French Parliament rejected the idea of granting legal personality to intelligent robots, considering the matter premature. In addition, the expert committee formed by the European Commission in 2020 confirmed the impossibility of granting legal personality to autonomous systems, as the damage they cause is attributed to existing persons or organizations⁴⁵.

Subsection Two: The Position of Arab Legislation on the Legal Personality of Intelligent Robots

When reviewing most of the Arab legal texts, especially those from the more technologically advanced Gulf and Eastern Arab countries, it is evident that they deal with what is called the “intelligent agent” or what some legislations refer to as the “electronic intermediary”. These laws clarify the legal provisions applicable to the first generation of smart agents, but do not grant them legal personality. Instead, they attribute the actions resulting from them to their users⁴⁶, as clearly stated in Article 10 of the Jordanian Electronic Transactions Law and Articles 11 and 14 of the Bahraini Electronic Transactions Law⁴⁷.

While these legislations address the intelligent agent, the Algerian legislator, despite the issuance of Law 18-05 on electronic commerce⁴⁸, has not addressed this issue, which constitutes a legal deficiency that the Algerian legislator should remedy.

From all of the above, it is clear that the Arab legal system does not address the issue of the legal personality of intelligent robots, mainly due to the lack of necessity. This issue acts as an obstacle to any

⁴²- Abdullah Said Abdullah Al-Wali, previous reference, p. 267.

⁴³- Amr Taha Badawi Mohamed, previous reference, footnote p. 08.

⁴⁴- Mohsen Mohamed Al-Khabani, previous reference. pp. 102-138.

⁴⁵- Amira Badawi Najm, Ethics of Artificial Intelligence in Light of UNESCO Recommendations, previous reference. p. 90.

⁴⁶- Law No. 15 of 2015 concerning electronic transactions.

⁴⁷- Decree Law (54) of 2018, issuing the amended and supplemented law on electronic letters and transactions.

⁴⁸- Law No. 18-05 dated 24 Sha'ban 1439 (May 10, 2018), concerning electronic commerce, Official Gazette, No. 28, issued on May 16, 2018.



legislative intervention, as legislators in any country cannot enact legal texts until a pressing and urgent need is clearly established. One of the key characteristics of legal rules is that they are social norms of behaviour that arise from societal needs. Whenever a phenomenon emerges and it becomes apparent that existing legal texts are inadequate to deal with it, the need to regulate it becomes urgent.

CONCLUSION:

From all that has been discussed, it is clear that the issue of the legal personality of intelligent robots has generated much debate among scholars. Some have strongly opposed the granting of such personhood, while others have supported it. However, they differ in their views on how these robots should be treated. Some have gone so far as to suggest that robots should be humanized and treated as natural persons, while others have likened them to legal persons because of their similarities in several respects, particularly with respect to legal presumptions and the need for registration for recognition.

Contrary to these views, another perspective argues for the need to create a new category that enjoys legal personality, which includes artificial intelligence systems, whether embodied or disembodied, in the form of intelligent robots, regardless of their form.

However, the granting of legal personality to this category should only be granted if the robots possess the characteristic of autonomy, i.e. they can make decisions independently, without recourse to their creators, developers or programmers, based on their machine learning capabilities. This idea was accepted by the European Parliament in 2017, but has not gained traction, especially after objections from the Economic and Social Committee and the European Parliament's 2020 decision on civil liability for artificial intelligence.

The divergence of scientific opinions and conflicting legislative visions regarding the granting of legal personality to intelligent robots has led to several recommendations, including:

1. Avoid media hype: Do not follow the media frenzy surrounding the granting of legal personality to intelligent robots until there is legal certainty about the need for this step.
2. Comprehensive study: generalise the study of artificial intelligence systems across different faculties and fields, as it is an urgent necessity that has permeated human life.
3. Limitation of legal personality: Limit the granting of legal personality to independent intelligent robots, especially the more advanced ones.
4. Interdisciplinary conferences: Organise conferences where technical specialists in artificial intelligence and legal experts work together to find practical solutions to the issues that intelligent robots may raise.
5. Legal framework: Establishing a specific legal framework for the operation of intelligent robots.

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