



Legal Personality of Artificial Intelligence Systems and Controls on Their Legal Liability

Dr/ ASSIA AOURAGH
Institute of Law
Département of LAW
University Center of Barika
Amdukal Road Barika 05100 ALGERIA
assia.aouragh@cu-barika.dz

Submission date- 13.11.2025

Acceptance -15.01.2026

Publication -21.02.2026

Abstract

In light of the current endless digital developments and changes and the technological and digital boom that the world is witnessing in various fields, artificial intelligence technology has emerged as a problem in physical applications of artificial intelligence based on highly advanced modern systems and programmes, which are growing rapidly and have penetrated all aspects of economic, political, military and research life. This raises questions about the existence of controls governing the use of artificial intelligence technologies and the extent to which users of physical artificial intelligence technologies are responsible, or whether the responsibility lies with artificial intelligence systems in the event that they cause harm to others.

Therefore, in this research paper, we will attempt to define the conceptual and legal framework for the use of artificial intelligence tools, examine the extent to which the latter enjoy legal personality that determines their responsibility, and investigate the extent to which there are established safeguards and controls for the use of artificial intelligence technologies.

Keywords: Artificial intelligence, legal liability, controls on the use of artificial intelligence, legal personality of artificial intelligence, intelligent robots.

Introduction

The term artificial intelligence has recently become widespread. It is a product of the digital revolution and modern technologies that currently dominate the world, and the repercussions of their use in various aspects of life. This has led to the endless use of artificial intelligence in various areas of life, raising the issue of the responsibility of artificial intelligence systems, or more precisely, who is responsible in the event that artificial intelligence systems and software are used and cause harm to others, and the impossibility of monitoring and applying traditional liability rulings to artificial intelligence systems, or whether it is necessary and inevitable to grant these systems legal



personality so that they can be held accountable and required to pay compensation for damages that may be caused to others as a result of their use, especially since the legal personality of artificial intelligence systems has not been recognised by most legislations, and their legal liability has not been regulated.

With the increasing use of artificial intelligence systems, a major legal challenge for comparative systems is how to regulate their liability. In the absence of a clear legislative framework granting these systems legal personality independent of natural persons, some countries maintain and establish legal liability and limit it to the parties. This raises questions about the need to amend existing legislation or create new laws that are commensurate with the nature of artificial intelligence and its ability to operate independently, especially with the development of smart systems that may become capable of making autonomous decisions that affect individuals and society.

The importance of this research paper is evident in our attempt to shed light on the topic of legal liability for artificial intelligence systems as a topical issue and to examine the extent to which they enjoy legal personality, which constitutes a real challenge for comparative legislation, which has been limited to regulating the liability of natural and legal persons. While jurisprudence has differed on whether to grant legal personality to artificial intelligence systems, it has, as a result, rejected their liability.

Through this study, we aim to clarify the extent to which artificial intelligence systems enjoy legal personality that entails legal liability, given the novelty of the subject and its emergence on the legal scene.

The problem posed by this topic is:

To what extent do artificial intelligence systems enjoy legal personality that entails legal liability?

To answer the above question and to understand the subject of the research, we used a descriptive approach to explain the nature of artificial intelligence, examine its legal nature, and use an analytical approach to explain the legal nature of these systems and investigate the nature of legal liability arising from the damage caused by artificial intelligence systems to others. We also analysed various jurisprudential opinions on whether to recognise the personality of these intelligent systems.

To cover all aspects of the above issue, the research paper has been divided into two main sections:

The first section concerns the conceptual framework of artificial intelligence.

The second axis: the legal responsibility of artificial intelligence.

The first axis: the conceptual framework of artificial intelligence.

In this axis, we first address the concept of artificial intelligence, then explain its characteristics, and, thirdly, discuss its legal nature.

First: The concept of artificial intelligence



1- Linguistic definition of artificial intelligence

The term contains two words, the first of which relates to:

Intelligence (noun), intelligence: source of intelligence.

Intelligent (verb), intelligent, intelligent, source of intelligence.

Human intelligence is the ability to understand, deduce, analyse and discriminate with the power of one's innate intelligence and quick wit.

Intelligence is the ability to analyse, synthesise, discriminate, choose and adapt to different situations.

The second relates to:

Artificial, a noun attributed to the fabrication of something unnatural, such as artificial silk and artificial flowers.

Artificial intelligence in computers and information is the ability of a machine or device to perform certain activities that require intelligence, such as actual reasoning and self-repair.¹

2- The conventional definition of artificial intelligence

Artificial intelligence is called Artificial Intelligence in English and is sometimes called machine intelligence. It is expressed using the symbol (AI) and is a branch of computer science and one of the fundamental pillars of the technology industry in our current era.

The term artificial intelligence refers to systems and devices that mimic human intelligence to perform tasks and can improve themselves based on the information they collect.

The concept of artificial intelligence is that it is a part of computer science that deals with specific systems for these devices, characterised by many features that give them superior ability to mimic human minds in areas such as language, learning, thinking, decision-making, and problem-solving. Artificial intelligence stems from natural human work, skills, and abilities to program computers for tasks that far exceed what humans can do in many fields. Therefore, it is called artificial intelligence, i.e., intelligence arising from human creation and innovation, using various computational processes to draw conclusions from axioms commonly accepted in computer programming.²

Scholars have differed in their definitions of artificial intelligence. Some have defined it as:

-A science that aims to design intelligent systems that enable computers to mimic human thinking and interact with the same human capabilities by feeding them with huge amounts of data and information, or through self-learning.³

- It has also been defined as the ability of a machine to perform cognitive functions associated with the human mind, such as perception, reasoning, learning, interacting with the environment, problem-solving, and even creativity.⁴

Artificial intelligence is a science or technology that aims to make machines mimic human behaviour or, in some cases, perform certain tasks instead of humans after thinking, reasoning and making decisions.⁵



It is also defined as the science capable of building machines that perform tasks that require a degree of human intelligence when performed by humans, or the ability of a machine to perceive its environment and respond to it independently and perform tasks that normally require human intelligence and decision-making processes without direct human intervention.

It should be noted that, despite widespread interest in the use of artificial intelligence across fields, there is no universally agreed-upon definition, as it is a broad field rather than a concept that can be easily defined. There are multiple definitions of artificial intelligence, depending on the field in which it has developed. Artificial intelligence draws on fields beyond computer science, such as psychology, neuroscience, cognitive science, philosophy, linguistics, probability, and logic, encompassing almost all fields.

Second: Characteristics of artificial intelligence

Artificial intelligence is characterised by a set of features, the most important of which is its ability to learn and perceive, thereby enabling it to make independent decisions. Artificial intelligence is also characterised by accuracy and speed in certain tasks. The most important characteristics of artificial intelligence are:

1-The independence of artificial intelligence is a matter of privacy.

According to ISO 8373:2012, independence refers to the ability to perform certain tasks in specific situations and draw conclusions without human intervention. Freedom of decision-making is considered a guarantee of the existence of artificial intelligence, which is distinct from ordinary software and computing that operates within the framework set by the user, where all decisions are predictable, unlike artificial intelligence, whose decisions cannot be predicted.

The distinctive feature of artificial intelligence is its ability to produce certain effects by making unilateral decisions independent of the user's will. Artificial intelligence is independent in that it requires minimal information from its designer, in addition to the information it acquires from its environment, to perform its work. It can take proactive initiatives while demonstrating a degree of flexibility, such as making suggestions to the user and interacting with and responding to requests directed at it.⁶

The more independent AI is from those who interfere with it, whether directly or indirectly, the greater its privacy. This raises the issue of independence and its connection to AI decisions that may cause harm to others, making it subject to legal accountability on the one hand and requiring compensation for such harm on the other. This raises the idea of recognising the legal personality of artificial intelligence and the extent to which it bears legal responsibility.

2-Ability to learn and perceive

Artificial intelligence systems have the ability to learn and perceive human needs, where AI devices monitor a person's behaviour and track their routine habits, such as the news they prefer to read, the places they like to visit, their favourite news or social media pages,



or the appearance of advertisements for products they have not searched for. All of this is the result of representing automated models in a specific area of life and identifying the relationships between their elements, thereby generating results that are appropriate to the event, all based on what humans have previously done by feeding the device with information that enables it to understand and perceive. There are those who reject the presumption of artificial intelligence systems' ability to perceive, arguing that they only perceive after being fed information, while others support the idea that artificial intelligence is capable of thinking through learning and perception.

Artificial intelligence can learn from mistakes, which is one of the most important criteria for intelligent behaviour, as it is based on the idea of improving performance through trial and error. The ability of artificial intelligence to learn, innovate and perceive inevitably depends on technological progress, so what is impossible today may become possible in the future.⁷

Third: The legal nature of artificial intelligence

There is disagreement in jurisprudence about the legal nature of artificial intelligence, with two main schools of thought. The first classifies artificial intelligence as an inanimate object, while the second considers it subject to special rules that correspond to its nature (personification).

1. Artificial intelligence is an inanimate object

This school of thought denies that artificial intelligence is a thing, meaning it is not eligible to be the subject of financial rights and, on that basis, cannot be granted legal personality. According to them, artificial intelligence is a means by which natural humans perform certain actions, and therefore, it cannot be granted legal personality, regardless of its level of intelligence. Accordingly, responsibility lies with the owner and guardian of the thing.⁸ This trend has linked the granting of legal personality to intelligent robots, which do not have the same degree of intelligence as humans and therefore cannot be granted legal personality. This has been confirmed by European and American researchers, who have rejected the idea of recognising intelligent robots as legal persons. The European association supporting the robot project did not endorse the idea of recognising them as legal entities with the same legal status as natural persons. Furthermore, approximately 156 experts in law and artificial intelligence from 14 European countries rejected granting legal personality to intelligent robots in a memorandum addressed to the European Parliament, arguing that this would make it easier for the producers of these robots to shirk their responsibilities towards their customers.⁹

2. Artificial intelligence as an independent entity

This modern trend takes the opposite view of the traditional one, considering artificial intelligence an independent entity due to its characteristics, namely its ability to make certain decisions independently, outside the user's will. This requires the independence of artificial intelligence, given that it has a minimum amount of information that constitutes



support for its independence. Independence, where it can perform certain tasks based on a specific situation and provide conclusions without human intervention, which means that artificial intelligence is distinct from ordinary software and computing that operates within the user's framework, where all decisions are predictable, unlike artificial intelligence, whose decisions cannot be predicted, which enables artificial intelligence systems to bear to bear obligations and enjoy rights. All persons are human beings, but not all persons are human beings, as the law grants legal personality to legal persons who are not human beings. Furthermore, developments in artificial intelligence systems have created awareness and perception, enabling them to make certain decisions in certain situations without the need for user or manufacturer intervention, thereby making them unique beings with a special nature.¹⁰

The second axis: Legal responsibility for artificial intelligence

The issue of recognising the legal personality of artificial intelligence systems is the subject of intense jurisprudential and legislative debate, with supporters and opponents. Given the characteristics of artificial intelligence, such as independence in decision-making, the ability to learn independently, and the ability to interact with others, opinion has shifted towards the need to amend legal regulations to include artificial intelligence and grant it legal personality, similar to the legal personality enjoyed by legal persons, taking into account the practical and economic considerations First: Recognising artificial intelligence as a legal entity.

First: Recognising artificial intelligence as a legal entity

1. The concept of legal entity

Legal personality is the capacity to acquire rights, assume obligations and duties. In legal terms, a person is anyone who is eligible to acquire rights and assume obligations. In legal language, a person is either natural, such as a human being, or legal, as with companies, institutions, and others. Personality implies recognition and enjoys legal guarantees and protection.

Legal personality is established for natural persons as well as for legal persons, such as companies or groups of funds, and for institutions, in which case it is called legal personality. However, in this case, personality is granted to a moral or conceptual entity in order to achieve certain objectives. A moral or legal person acquires legal personality by virtue of law, even though it is not a natural person, demonstrating that legal personality is not exclusive to humans, except for the rights enjoyed by natural persons individually, such as rights inherent to human beings.¹¹

Referring back to the concept of legal personality, it can be noted that this personality is a characteristic established by law to enable a person to acquire rights and bear obligations, and that it is not necessary for a person to be eligible to acquire all rights and bear all obligations; rather, it is sufficient for a person to be eligible to acquire a single right.¹²



2. The position of jurisprudence on granting legal personality to artificial intelligence

Some jurisprudence has moved towards recognising the legal personality of intelligent robots, thereby holding them responsible for the damage they cause. This trend considers that an autonomous robot with artificial intelligence is a responsible electronic person and recognises its legal personality.

This trend was supported in a report by a member of the European Parliament and was also adopted by the European Parliament on 16 February 2017 regarding the most advanced autonomous robots that make independent decisions and act independently with others. The creation of legal personality for robots aims to make them responsible for their own actions and to require them to compensate others for any damage they cause. Instead of determining the responsibility of the robot's designer, manufacturer, owner or user for the robot's actions, the responsibility lies with the robot itself. Recognising the legal liability of intelligent robots is similar to recognising the legal personality of a legal entity.¹³

One aspect of jurisprudence explains that granting legal personality to artificial intelligence systems is supported by practical necessities and the implications of granting personality, as the necessity of granting artificial intelligence systems legal personality and recognising them as persons before the law is based on at least two reasons:

- The first relates to the need for someone to be held responsible for errors arising from the use of artificial intelligence, which serves to fill the legal gaps related to liability created by the speed, mechanism and movement of artificial intelligence systems.
- The second reason lies in the need to recognise the legal personality of such systems to ensure that there is someone who is rewarded and granted rights related to the things they create, such as the intellectual property rights created by artificial intelligence systems.¹⁴

I criticise this view on the basis that recognising intelligent robots as legal persons raises several issues. Several objections have been raised, foremost among them the lack of clarity regarding the scope of application: which robots are granted legal personality, what limits should be imposed on different robots, and whether these limits lie in the immateriality of intelligent robots. If the answer is yes, does this mean the recognition of legal personality for robots that are not composed of any physical entity? This determination raises a major problem for electronic decision-making assistance programmes. To achieve recognition of the independent legal personality of robots, machines must be capable of learning, self-correction, and adaptation to their environment, demonstrating their ability to take initiative.

Recognising the legal personality of artificial intelligence systems also carries the risk of abolishing the prevailing legal distinction between persons and objects. The argument that intelligent robots are equivalent to legal persons who can be held liable cannot be accepted, as this analogy is not in line with this view: a legal person is an abstract idea or merely a legal designation of financial liability and does not enjoy any independence from its managers. On the contrary, an electronic person or robot is not merely an abstract entity



because it is a legal diagnosis of artificial intelligence; it has the potential to develop independently as a legal person.

Furthermore, recognising the legal personality of intelligent robots could, in the future, require recognising their fundamental rights in the same way as natural persons, and this recognition would raise even more issues than those relating to legal persons.¹⁵

Second: Not recognising artificial intelligence as a legal entity

Supporters of this view believe that the law recognises only two types of legal entities: natural persons and legal persons, or moral entities. The former can be granted only under certain conditions, while legal personality requires recognition, whether public or private, and it begins accordingly. According to this view, artificial intelligence technologies cannot be classified under the first type, i.e., natural persons, as this is limited to humans. Nor can they be classified as moral persons due to clear differences. Granting legal personality to artificial intelligence technologies requires the existence of will on their part, which current technologies do not possess, as they are not sufficiently developed to achieve a level of self-programming that enables them to operate without human intervention.¹⁶

Supporters of this view believe that current AI systems have not yet reached a level of intelligence comparable to that of humans and are therefore not intelligent enough to be granted legal personality. Some scholars, particularly in Europe and the United States, emphasise that they do not accept the idea of legal personality for artificial intelligence systems, as it is flawed in several respects. They reject the idea of recognising artificial intelligence systems as legal persons with the same legal status as natural persons. This is also the position of French jurists, who have pointed out the dangers of such a measure, which could lead to several violations, foremost among which is the lack of accountability of manufacturers and users of artificial intelligence systems and a lack of concern for the production of safe automated systems that do not pose a danger to users. It is not necessary to grant intelligent systems any special legal status to obtain social benefits.¹⁷

Third: Recognising artificial intelligence as having a special legal personality, or 'virtual personality'

A virtual person is defined as an identity that transcends the boundaries of natural identity while retaining the ability to interact with it to obtain natural benefits, or a digital entity with characteristics and features unique to beings in the virtual world.

The virtual personality represents an alternative to the idea of responsibility for artificial intelligence errors, as establishing legal personality for artificial intelligence, or 'human machines,' will have a positive impact on accountability and the right to litigation. It has been named 'electronic personality' in the European decision on the rules of civil law for artificial intelligence.¹⁸



However, some jurists have argued that the appropriate name for the personality granted to artificial intelligence is ‘virtual personality,’ as it represents a legal assumption imposed by practical reality, whereas the term ‘electronic personality’ is technical in nature and not legal, especially since electronic personality is automatically granted to everyone who interacts with the digital environment. The latter differs radically from a legal standpoint from a legal personality managed by humans, while intelligent robots will operate using autonomous machine thinking rather than human thinking.

Fourth: The type of liability incurred by artificial intelligence systems

1. Negligence

A person harmed by the actions of artificial intelligence technologies can file a claim based on the harmful act, which is the most appropriate basis for the injured party under contract law. The legal basis for liability for a harmful act varies depending on the method of harm. If it is direct, the guarantee is mandatory, and there are no conditions. If the harm is caused by negligence, then infringement or intent is required.

***Direct harm**

Liability is based on the mere occurrence of the harm, which results in the liability of the perpetrator of the harmful act, even if they are not discerning. The damage caused by artificial intelligence technologies is considered direct damage, as these technologies cannot move unless activated by their owner. Therefore, any damage resulting from them is attributed to those under their control, except for damage that cannot be prevented. A programmer or developer, as the guardian of these technologies, cannot deny their obligation to provide a guarantee unless they can prove an external cause, such as force majeure, a sudden accident, the intervention of a third party, or the fault of the victim, which may be unforeseeable or impossible to prevent.

In addition to the basis of damage, the programmer, operator, or developer may be held liable for the harmful actions of artificial intelligence technologies based on the principle of liability for gain, i.e., whoever benefits from something must bear its harm.¹⁹

***Causing harm**

A programmer or developer of artificial intelligence technologies is considered an infringer in cases where the artificial intelligence technologies are defective, and the infringement can be attributed to one of the three stages of the production and marketing of artificial intelligence technologies:

- The design stage (design defect), where the design defect affects all outputs of the financial product production line.
- The manufacturing stage (manufacturing defect), where the manufacturing defect results from a flaw in the manufacturing process itself, which is often based on mechanisation, whereby the goods are affected by a defect that is not present in the rest of the outputs of the financial product production line.



-Marketing stage (warning defect): The producer is obliged to provide the consumer with clear, complete and accurate information about the goods or services they are purchasing. Any advertisement that misleads consumers or causes them to make a mistake about the goods or services is considered a breach of this obligation. An advertisement is considered misleading if it contains false, incorrect or incomplete data or information.²⁰

2. Contractual basis

Contractual guarantees are direct commitments between the parties to a contract, in which the manufacturer guarantees the quality and safety of its products to the direct purchaser. These guarantees may be express or implied.

• Express guarantee

is any assurance or statement made by the seller or manufacturer regarding the quality and safety of the product, which the buyer relies on as part of the sales contract at the time of purchase. Such a warranty may be created in writing, orally, through images, packaging, models, samples, or advertisements. A breach of warranty constitutes strict liability, as it occurs as soon as the product fails to conform to the seller's statements, regardless of the seller's fault or negligence. The basis of liability here depends on the statements made by the manufacturer and not on the nature of the product itself.

• Implied warranty

Implied warranties are independent of the seller's statements regarding the quality of the product and focus on the condition of the product itself. Implied warranties are divided into two types:

A- Implied warranty of merchantability.

B- Implied warranty of fitness for a particular purpose is an implied promise by the seller that the product is fit for the buyer's particular purpose.

A breach of contractual obligations is considered to be the provision of incorrect information to the consumer about the goods or services, the concealment of any material information from the consumer, or the provision of incorrect information to the consumer prior to the completion of the purchase regarding the obligations of the supplier or the rights of the supplier in relation to the consumer, or the concealment of any material information related thereto.

Conclusion

It is acknowledged that the use of artificial intelligence systems in various fields and areas has become inevitable, necessitating the introduction of legislation to regulate the use of artificial intelligence systems, especially since their emergence has become a concern for countries if the mechanisms for their use are not regulated and the responsibility for the use of artificial intelligence systems and the frameworks for granting legal personality to such systems.

Based on the above, we have observed a number of conclusions, which are as follows:



- The lack of a comprehensive definition of artificial intelligence leads to a lack of control over the precise meaning of the concept of artificial intelligence.
- The granting of legal personality to artificial intelligence systems has not been proven, as long as artificial intelligence systems do not enjoy financial liability or legal capacity.
- As we have seen in this study, Algerian lawmakers have failed to keep pace with technological developments, and the absence of legislation to date reflects their failure to keep up with current developments.
- Granting artificial intelligence systems legal personality and imposing liability on them allows the producers and developers of these systems to disclaim responsibility, resulting in widespread damage caused by the use of these intelligent systems without any legal basis for assessing their liability.

References

- ¹- Belbay Ikram, *Artificial Intelligence in International Law, A Study of Concepts, Frameworks and Applications*, First Edition, Ibn al-Nadim Legal Publishing and Distribution Foundation, 2024, p. 27.
- ²- Hamdi Ahmed Saad Ahmed, *The Legal Nature of Artificial Intelligence*, Presentation at the Fourth International Scientific Conference held at the Faculty of Sharia and Law, Tanta, entitled *The Legal and Sharia Adaptation of Contemporary Developments and Their Impact on Achieving Community Security*, held from 11 to 12 August 2021, p. 137.
- ³- Ghazi Khadija, *The Legal Nature of Artificial Intelligence*, article published in *Al-Turath* magazine, vol. 14, no. 02, June 2024, p. 73.
- ⁴- Nour Khalid Abdul Razzaq, *Civil Liability Arising from the Use of Artificial Intelligence*, accessed at <https://jelc.journals.ekb.eg/ARTICLE.342094.732FB-5E65C12COAA25A00OB120277A59.PDF> on 06/03/2025 at 20:41.
- ⁵- Rabai Ibrahim, *The Legal Nature of Artificial Intelligence*, article published in the *Journal of Legal and Political Studies*, Volume 10, Issue 01, June 2025, p. 536.
- ⁶- Belbay Ikram, previous reference, p. 40.
- ⁷- Nour Khaled Abdul Razzaq, previous reference, p. 07.
- ⁸- Rabai Ibrahim, *The Legal Nature of Artificial Intelligence*, article published in *Al-Ustaz Al-Bahith Journal for Legal and Political Studies*, Volume 10, Issue 01, June 2025, p. 543.
- ⁹- Ghazi Khadija, *The Legal Nature of Artificial Intelligence*, article published in *Al-Turath* magazine, vol. 14, no. 02, June 2024, p. 77.
- ¹⁰- Ghazi Khadija, *op. cit.*, p. 78.
- ¹¹- Bakhit Muhammad Al-Da'ja, *From Machines to Entities, The Legal Personality of Artificial Intelligence - Challenges and Aspirations - A Comparative Study in Civil Legislation*, article published in the *Journal of the Jordanian University of Zaytouna for Legal Studies*, special edition, 2024, p. 947.



-
- ¹²- Abdul Karim Mahmoud Zalam, Recognising the Legal Personality of Artificial Intelligence Systems: Necessity or Exaggeration? Article published in the Journal of Legal and Economic Research, Volume 08, Issue 01, 2025, p. 212.
- ¹³- Maha Yousry Abdel Latif Abdel Latif Nassar, The Legal Liability of Artificial Intelligence, article published in the Legal Journal, no year of publication, p. 1494.
- ¹⁴- Belbay Ikram, previous reference, p. 57.
- ¹⁵- Maha Yousry Abdullatif Abdullatif Nassar, previous reference, p. 1496.
- ¹⁶- Khader Abbas Mushan Al-Issawi, Legal Adaptation of Artificial Intelligence Technologies, article published in the Journal of Islamic Sciences, issue 38, p. 444.
- ¹⁷- Abdul Karim Mahmoud Zalam, op. cit., p. 212.
- ¹⁸- Abdul Rahman Ahmed Al-Harhi, Ali Muhammad Muhammad Al-Daroubi, The Legal Personality of Artificial Intelligence, article published in the Journal of Law and Political Science, vol. 12, no. 01, 2025, p. 09.
- ¹⁹- Muhammad Ali Ahmad Al-Amawi, Legal Aspects of Civil Liability for Artificial Intelligence Applications in Jordanian Legislation, article published in the Journal of the Jordanian University of Zaytouna for Legal Studies, special edition, 2024, p. 130.
- ²⁰- Ibid., p. 131.