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Artificial Intelligence: Legal Issues and Solutions

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Abstract. The development of information and communication technologies has led to the emergence of artificial intelligence, representing the latest advancement of human intellect in technological and cognitive fields through the development of intelligent systems capable of simulating human intelligence. This subject has attracted the interest of many disciplines and posed several legal issues and challenges. These include the question of whether to grant legal personality or not, civil and criminal liability, how to compensate for the risks resulting from it and the extent to which intellectual property rights should be granted. There is also the question of its impact on the right to privacy. This study aims to analyse and discuss these matters.

1. INTRODUCTION

The world has recently witnessed an unprecedentedly rapid development in the information and communication technology sector. This has led to the creation of a new kind of intelligence that mimics or sometimes even surpasses human intelligence. This new intelligence is commonly referred to as artificial intelligence. This technology has the ability to think, learn and make decisions at remarkable speeds with high precision, often surpassing human capabilities. It operates without human control, oversight or prior intervention, relying on organised and stored aggregated information and precise algorithms and software.

Artificial intelligence has had a significant impact on individuals and communities by enhancing various aspects of life, promoting well-being, speeding up task completion and realising sustainability in its various dimensions. Consequently, it is a subject of interest to many technical, social and legal disciplines, particularly given its growing use across diverse sectors such as education, law, the judiciary, the economy, trade, medicine and the media. However, despite its numerous advantages in the digital transformation era, artificial intelligence simultaneously poses several ethical, legal and moral challenges and risks that need to be framed, regulated and addressed.

This study is important because it presents various concepts according to their fields and dimensions. It also identifies the key legal challenges faced by artificial intelligence technologies and explores the legal issues that arise from using them as advanced tools that can process data, extract patterns and make complex decisions independently of humans.

The study focuses on clarifying the establishment of legal rules and how to guide them in a context where they can harmonise with artificial intelligence systems by modifying and developing them. It also attempts to adapt these advanced technologies and establish new legal rules specific to them. The critical role of legislation in regulating its use and drafting legal frameworks that align with the fields it infiltrates emerges here.

Therefore, legal protection against the risks arising from artificial intelligence technologies undoubtedly raises numerous legal issues that require legislation capable of encompassing this intelligence's distinctive features, understanding its characteristics, and protecting others from the risks stemming from its various applications. Consequently, this research paper poses the following question: What legal issues are raised by the use of artificial intelligence systems, and what possible solutions exist?

To address this issue, a descriptive approach was adopted to focus on the main variables related to the study topic. This was complemented by an analytical approach involving the analysis of legal texts to derive the associated rules and understand the essence of the concept, as well as the legal challenges posed by or arising from the use of artificial intelligence. Consequently, the study topic has been divided into two main parts, as follows:

First: Artificial Intelligence: A Complex, Multidimensional Concept.

Second: Legal Challenges of Artificial Intelligence.

2. ARTIFICIAL INTELLIGENCE: A COMPLEX, MULTIDIMENSIONAL CONCEPT

AI encompasses complex and multifaceted terms that intersect across various disciplines. This section therefore aims to provide a unified understanding of the concept based on the changing data surrounding it that drives its adoption, highlighting the concept of artificial intelligence in the first element and its legal applications in the second.

2.1. The Concept of Artificial Intelligence

Initially, there was no consensus on the definition of artificial intelligence, as definitions varied based on the perspective from which it was viewed. Thus, this section addresses the various definitions to determine its characteristics and distinguish it from related terms.

2.1.1. Definition of Artificial Intelligence

From the outset of its emergence, artificial intelligence has been viewed through multiple lenses, with the aim of defining and clarifying its concept. This has resulted in a diversity of foundational bases and graphical distinctions that establish the fundamentals of the concept, taking into consideration its different dimensions, the various fields it enters, its objectives and its functions. Legal,

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technical and doctrinal definitions have been presented, which will be outlined as follows:

2.1.1.1. Doctrinal Definition

The majority of jurists, scholars and researchers in the technical and human sciences define artificial intelligence as a term composed of two components: 'intelligence'[1] and 'artificiality'[2]. There is no consensus on its definition, as various definitions have been presented. One such definition, formulated by honorary professor John McCarthy at Stanford University in 1955, considers it a branch of computer science, defining it as "the science and engineering of making intelligent machines"[3]. Another definition is that it is the ability to learn and implement appropriate techniques to solve problems and achieve goals in a given context, even when conditions are uncertain and the world is constantly changing.

Some view it as a computer's ability to perform tasks that typically require human intelligence, such as visual perception, speech recognition, and decision-making[4]. Others suggest that it is the technology and programming that enables devices or software to simulate human thought computationally, along with the capability to interact with individuals and the surrounding environment[5]. According to the European Commission, it refers to systems that exhibit intelligent behaviour by analysing their environment and taking autonomous actions to achieve specific goals[6].

2.1.1.2. Technical Definition

The concept of artificial intelligence originated in the technical field before expanding into other areas. Accordingly, artificial intelligence is a software system that operates based on algorithms executed through neural networks. These networks rely on three elements:[7] the collection and utilisation of data regardless of its nature; the ability to learn partially or wholly independently; and the ability to make independent decisions based partially or wholly on learning and data processing.

In computer science, Professor Stuart Russell of the University of California's Department of Computer Science proposed a definition of artificial intelligence based on the concept of a rational agent:[8] an entity that acts to achieve the best possible outcome given its environment. Some also suggest that AI is a modern branch of computer science that seeks advanced programming methods to perform tasks and make inferences that are similar to human intelligence, at least to some extent. Thus, artificial intelligence is a science that seeks to define human intelligence, determine its dimensions and simulate some of its properties[9].

2.1.1.3. Legal Definition

Although artificial intelligence emerged in 1955, it has only recently become a legal subject due to the challenges it presents, which exceed legal frameworks[10]. European legislation has been proactive in issuing directives and guidelines on this rapidly evolving field. These include the 2016[11] and 2017[12] directives, the 2018 General Data Protection Regulation, and the 2019 guidelines from the European Commission, formulated after the 2020–2021 pandemic. Interest in developing and regulating this technology has increased, along with the 2020[13] civil liability system, culminating in the European Artificial Intelligence Act being issued under Regulation No. 2024/1689[14] on 13 June 2024. This law came into effect in August 2024 and will be fully implemented by 2026, marking the first comprehensive legal framework for artificial intelligence in Europe and worldwide. Its purpose is to regulate the use of artificial intelligence systems in EU member states.

According to Article 3, Paragraph 1 of the Regulation, artificial intelligence is defined as follows: 'A machine-based system designed to function with varying degrees of autonomy, generating outputs such as predictions, content, recommendations or

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[1]- Intelligence is defined as the ability to analyse, synthesise, distinguish, choose and adapt to different circumstances. See: Intermediate Dictionary, The Arabic Language Academy, Al-Shorouk International Library, 4th edition, Egypt, 2004, p. 314. Some believe that intelligence is the ability to solve complex problems, think abstractly, understand complex matters and ideas, and learn quickly from experience. It reflects a broader and deeper scope of understanding and knowing what should be done. See: Dagmar Monett, Colin W. P. Lewis and Kristinn R. Thorisson, 'On Defining Artificial Intelligence', Journal of Artificial General Intelligence, 10(2), 2019, p. 27. Available at: https://scientific.elsevier.com/2/v2/download/article/10.2478/jagi-2019-0002.pdf. Visited: 02/10/2025.

[2]- The term 'artificial' is applied to items that are man-made, distinguishing them from those that exist naturally. See: Abdul Aziz Ajeel Al-Nashmi, 'Ethics of Employing Artificial Intelligence Among Law Students', Journal of the International College of Law, Vol. 13, No. 1, Issue 49, December 2024, p. 17.

[3]- Christopher Manning, Stanford University, 'Human, Artificial Intelligence', September 2020. Available at: https://hai-production.s3.amazonaws.com/files/2020-09/AI-Definitions-HAI.pdf (visited on 14/10/2025 at 09:00).

[4]- Mohammad bin Mohammad Al-Hadi, Artificial Intelligence: Its Features and Applications, Egyptian-Lebanese Dar, Beirut, Lebanon, 2021, p. 139.

[5]- Nahiya Fathi Al-Hamouri, Artificial Intelligence: Its Concept, Importance and Patterns of Legal Responsibility According to International Agreements and National Legislation, Dar Al-Thaqafa for Publishing and Distribution, 1^(st) edition, Amman, Jordan, 2024, p. 165.

[6]- Rowena Rodrigues, "Legal and Human Rights Issues of AI: Gaps, Challenges, and Vulnerabilities," Journal of Responsible , p.01. Available at: https://text2fa.ir/wp-content/uploads/Text2fa.ir-Legal-and-human-rights-issue.pdf, visited on 14/10/2025 at 09:00.

[7]- AL Exandre Vial , op .cit, p66.

[8]- Alexandre Vial, Civil Liability Regime for Artificial Intelligence, PhD Thesis in Private Law and Criminal Sciences, University of Bourgogne Franche-Comté, December 12, 2022, p.26.

[9]- Faten Abdullah Ibrahim Saleh, "The Impact of Applying Artificial Intelligence and Emotional Intelligence on Decision Quality," Master's thesis, Middle East University for Graduate Studies, Jordan, 2008/2009, p.34.

[10]- Stanislas Renondin de Hauteclocque, Artificial Intelligence: Seeking a Legal Framework, PhD thesis, University of Paris Cité, May 24, 2024, p.03.

[11]- Regulation (EU) 2016/679 of the European Parliament and Council of April 27, 2016, concerning the protection of natural persons in regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

[12]- Civil Law Rules on Robotics European Parliament resolution of February 16, 2017, with recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)), Official Journal of the European Union C 252/239.

[13]- Civil liability regime for artificial intelligence European Parliament resolution of October 20, 2020, with recommendations to the Commission on a civil liability regime for artificial intelligence (2020/2014(INL)), Official Journal of the European Union C 404/107.

[14]- Regulation (EU) 2024/1689 of the European Parliament and of the Council of June 13, 2024, laying down harmonized rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139, and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797, and (EU) 2020/1828 (Artificial Intelligence Act), Document 32024R1689. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024R1689, visited on 14/07/2025 at 09:00.

decisions that can influence the physical or virtual environment based on the inputs it receives.[15]'

However, since artificial intelligence is one of the most rapidly evolving technical fields, establishing an accurate, comprehensive and exclusive legal definition that aligns with its evolving concept amid the swift technological revolution is challenging. The term is difficult to define legally, which is one of the most significant current legal challenges. Consequently, some have questioned the ability of legal standards to encompass scientific and technological advancements[16].

Algerian legislation has indirectly addressed the regulation of electronic transactions by suggesting that certain technological practices may involve artificial intelligence. This contrasts with other legislation that has implicitly recognised it by validating electronic agent transactions, as seen in Emirati legislation[17]. In Article 45 bis 6 of Law 25-11, which amends and supplements Law 18-07, the Algerian legislator implicitly indicates that the processing of data using new technologies is likely to involve artificial intelligence.

Based on the above, we can propose the following operational definition of artificial intelligence, which is built upon four fundamental procedural elements:

Algorithms and computational models;

- Decision-making and prediction.

Multidisciplinary application in practical contexts (e.g. law, economics, management and technology), which are established and regulated by law and subject to obligations and liability rules.

From these three definitions, we can provide a comprehensive and unified definition of artificial intelligence as follows:

It is a digital technical system based on advanced algorithms and machine learning models that enable computer systems to simulate human cognitive abilities, such as learning, analysing and making decisions, and performing tasks and functions autonomously. It is therefore a new concept with a unique nature that mimics human intelligence and the tasks and functions performed by humans. From a doctrinal perspective, it is considered an innovative cognitive tool for knowledge production and automated decision-making. Legally, however, it constitutes a technical entity with legal implications that define the relationships, obligations and legal responsibilities of the natural and legal persons who design, operate or benefit from it.

2.1.2. Characteristics of Artificial Intelligence

In order to strike a balance between law and technology, legislation must keep pace with technological developments and understand their implications. However, current legislation has not comprehensively addressed the various technical aspects of artificial intelligence, although it has included references to its characteristics. The most important of these are as follows:

- The capacity to easily access and process vast amounts of digital information and data compared to other technological applications.
- Machines' and digital computers' capacity to perform specific tasks that mimic those carried out by intelligent beings, such as thinking, learning, and perception.
- The ability to reason, infer and adapt to the surrounding environment[18].
- Speed of execution and increased productivity due to the ability to select the optimal choice and respond flexibly and efficiently to presented options[19].
- The ability to create tangible effects independently of the user's will, raising questions about liability for the actions of these programmes.
- The moral and immaterial nature of artificial intelligence. It is viewed as a set of algorithms or software, which is subject to intellectual property laws in most legislation and is considered an intangible asset[20]. However, it can also manifest in a tangible form, such as robots.

Artificial intelligence relies on algorithms for problem solving and artificial neural networks that mimic biological neurons. This gives computers exceptional speed in processing information and enables them to learn independently.

Artificial intelligence focuses on methods of achieving goals in situations where available information is complex[21].

2.1.3. Distinguishing Artificial Intelligence from Other Terms

Artificial intelligence involves machines simulating human intelligence when performing various tasks and functions, relying on specific algorithms and software. The concept of artificial intelligence may be confused with several closely related concepts. This section therefore distinguishes between artificial intelligence, robotics, digitisation and automation.

2.1.3.1. Robotics22

A robot is a machine that is pre-programmed to perform tasks more efficiently or quickly than humans can[23]. It is defined as 'an automatic device capable of interacting with entities or executing operations according to a fixed and modifiable programme, or one

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[15]- "AI system" means a machine-based system that is designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, infers from the input it receives how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments; REGULATION (EU) 2024/1689 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, Official Journal of the European Union.

[16]- Stanislas Renondin de Hauteclocque, op. cit., p. 310.

[17]- Ben Othman Farida, op. cit., p. 160.

[18]- Imad Abdul Rahim Al-Douhiyat "Toward a Legal Regulation of Artificial Intelligence in Our Lives: The Problematic Relationship Between Machine and Human," Al-Ijtihad Journal of Legal and Economic Studies, Vol. 8, No. 5, 2019, p. 16 (pp. 14–35).

[19]- Ibid., p. 16.

[20]- Baha Fatima. 'Artificial Intelligence Systems and the Legal Challenges of Their Personification', Journal of Research in Law and Political Science, Vol. 9, No. 1, 2023, pp. 412–427.

[21]- Dagmar Monett, Colin W. P. Lewis and Kristinn R. Thorisson, 'On Defining Artificial Intelligence', Journal of Artificial General Intelligence, 10(2), 2019. Available at: https://scientific.elsevier.com/2/v2/download/article/10.2478/jagi-2019-0002.pdf. Accessed 14/10/2025.

[22]- The term originates from the Czech word 'robot', meaning 'forced labour' or 'corvée', and was coined by the writer Karel Čapek in 1920. In Arabic, it corresponds to terms such as 'robot', 'automaton', or 'ensha'la'. See Mounir Baalbeki and Ramzi Baalbeki, Al-Mawrid Al-Hadith, Dar Al-Ilm Lil-Malayin, Beirut, 2008, p. 1002.

[23]- Fatima Zahra Aakkou, 'The Necessity of Recognising the Idea of Legal Personality for Robots under Certain Legal Guards', Algerian Journal of Public and Comparative Law, Special Issue, September 2025, pp. 113–125.

that is adaptable'[24]. This definition encompasses machines such as humanoids and androids, which can perform pre-programmed tasks either under direct human command and control or indirectly through computer programs[25].

Based on the above, the term 'robot' is narrower than the term 'artificial intelligence'. A robot can exist without an AI system, but an AI system cannot exist without a robot. If a robot acts only according to what it has been programmed to do by a human, either directly or indirectly, artificial intelligence is defined as an entity that acts independently to achieve the best possible solution based on available data and the surrounding environment.

2.1.3.2. Digitisation

Digitisation involves converting information sources in various forms into a computer-readable format using the binary system (bits), which is considered the fundamental unit of information in computer-based systems. This process involves transforming information into a set of binary numbers and relies on a range of specialised technologies and devices[26]. By contrast, artificial intelligence seeks to equip computer systems with capabilities similar to human intelligence. Therefore, the concept of digitisation is more limited than that of artificial intelligence.

2.1.3.3. Automation

Automation involves programming a machine to perform a specific task for a set period of time according to a predetermined programme, without deviation. Such a machine can only operate according to this programme, whereas artificial intelligence has the capacity to simulate human behaviour and can even surpass humans in terms of speed and accuracy when providing solutions. AI can act autonomously in unexpected and unplanned situations thanks to its learning and reaction capabilities[27].

2.2. Applications of Artificial Intelligence in Law

Advances in modern technology are one of the mechanisms for achieving sustainable development and social justice, and the law must keep pace with these developments and seek to regulate them in line with societal requirements. Although artificial intelligence has grown tremendously in the exact sciences, such as mathematics, engineering and physics, its application in the human and social sciences, including legal studies, has remained limited. Nevertheless, these technologies impact the legal domain. AI can enhance legal work, develop legal rules and reinforce systems of rights and public liberties. It can also facilitate sound decision-making and ease the process of studying and analysing legal data and documents quickly and efficiently.

AI is also used to programme a large number of cases, streamline research into judicial rulings and decisions, and contribute to the resolution of disputes with greater depth and accuracy than traditional methods. Furthermore, AI may replace judges in simple civil cases based on conclusive legal evidence[28]. It is also employed in analysing legal contracts through natural language processing, managing legal cases and predicting their outcomes[29]. In this context, BakerHostetler has equipped itself with the ROSS programme, an artificial intelligence tool based on IBM Watson technology, to assist its lawyers[30].

Moreover, artificial intelligence technologies are undeniably affecting the legal field, with AI playing an irreplaceable role in various branches of law, including administrative, civil, commercial and criminal law. In criminal law, for instance, AI assists in the detection and prediction of future crimes, as well as the identification of crime locations[31], particularly in the context of the growing threat of cybercrime[32]. These technologies enhance investigations and evidence analysis, enabling perpetrators to be identified rapidly and accurately[33]. However, this must be done under strict supervision to ensure that individuals' rights and privacy are not infringed.

In commercial law, economic institutions, trading companies and banks have adopted specialised robots to interact with customers and address their concerns. In administrative law, AI systems can be used to streamline public administration, making decisions and concluding administrative contracts to improve the quality of public services and strengthen the principles of transparency and accountability, while preventing administrative and financial corruption[34].

Given the extensive applications of artificial intelligence, many countries, particularly in Europe, have sought to establish a legal regulatory framework for it through comparative legislation. However, it could be argued that the legal framework governing AI in Algeria is incomplete and still in development[35]. Nevertheless, there is a legal basis for a specific AI legal regime, as evidenced by laws regulating electronic administration and the modernisation of the justice system, including the promotion of electronic litigation and e-commerce, and laws regarding electronic signatures and certifications, as well as the protection of personal data. Furthermore, law (09-04) aims to prevent cybercrime and guarantee security in cyberspace.

This raises the question: Is the Algerian legislator capable of keeping pace with the new technological challenges posed by AI, or does specific independent legislation need to be enacted for it? In the absence of a robust legal framework in Algeria governing AI, its use and accountability for the risks it poses, it is essential to align existing legislation with AI's operational frameworks. This should

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[24]- Alexandre Vial, op. cit., p. 57.
[25]- Raouf Wasfi. Robots in the World of Tomorrow, 1st edition, Dar Al-Maaref, Egypt, 2008.
[26]- Digitisation and Protection of Digital Heritage, HURDO Centre for Digital Expression Support, Cairo, Egypt, p. 6. Available at: https://fr.scribd.com/document/499815708/..., accessed 03/03/2025 at 13:00.
[27]- Baha Fatima, op. cit., p. 418.
[28]- Irfan Al-Khatib, 'Artificial Intelligence and the Law: A Critical Comparative Study of the French and Qatari Civil Legislations — In Light of the European Civil Law Rules on Robotics 2017 and the European Industrial Policy on AI and Robotics 2019', Journal of Legal Studies, Beirut, Lebanon, 2020, p. 12. Available at: https://digitalcommons.bau.edu.lb/lsjournal/, accessed 16/02/2025.
[29]- Ridwan Ben Sari. "Applications of Artificial Intelligence in the Field of Law," Notebooks of Policy and Law, Vol. 17, No. 1, 2025, pp. 31–32.
[30]- Charlotte Troi, "Law Put to the Test by Artificial Intelligence," Master's in Heritage Law, 2017, p. 37. Available at: https://dumas.ccsd.cnrs.fr/dumas-02177137/document. Accessed 02/09/2025 at 19:00.
[31]- Yahya Ibrahim Dahshan, op. cit., p. 144.
[32]- Law No. 15-03 dated 1 February 2015 concerning the modernization of justice, Official Journal of the People's Democratic Republic of Algeria, No. 06, dated 10 February 2015.
[33]- Law No. 18-05 dated 10 May 2018 on electronic commerce, Official Journal of the People's Democratic Republic of Algeria, No. 28, dated 16 May 2018.
[34]- Law No. 15-04 dated 1 February 2015 determining rules related to electronic signature and authentication, Official Journal of the People's Democratic Republic of Algeria, No. 06, dated 10 February 2015.
[35]- Law No. 09-04 dated 5 August 2009 including special rules for the prevention and fight against crimes related to information and communication technologies, Official Journal of the People's Democratic Republic of Algeria, No. 47, dated 16 August 2009.

be achieved through modifications and developments to encompass these intelligent entities, especially when they cause significant harm to others. Comparative legislation, particularly European legislation, should be used as a leading example in this field.

3. LEGAL CHALLENGES OF ARTIFICIAL INTELLIGENCE

Engaging with artificial intelligence in its intangible form, represented by software and algorithms, raises numerous legal challenges. The foremost of these is the question of whether to grant legal personality to these entities, followed by determining their liability for any damages they may cause, how to provide compensation and how to protect certain rights, such as intellectual property rights and the right to privacy. These issues will be discussed below:

3.1. The Legal Personality of Artificial Intelligence: Support and Opposition

Due to the widespread application of artificial intelligence in various areas of life, and its evasion of legal regulations due to incongruity with existing laws, it is essential that the law keeps pace with technological advancements. This can be achieved by establishing a clear legal framework for these intelligent entities, which have become part of modern societies and indicators of their progress. A crucial aspect of this framework is granting legal personality to these entities[36].

According to Article 25, Paragraph 1 of the Algerian Civil Code[37], legal personality refers to the capacity to acquire rights and assume obligations imposed by law. This is granted to natural persons upon birth and ceases upon death. There are two types of legal person: natural persons and legal entities[38].

The simulation of human intelligence by artificial intelligence raises legal questions about whether it should enjoy the same legal personality as humans. This topic has sparked legal and doctrinal debates, with differing opinions emerging as to whether legal personality should be recognised for artificial intelligence. Supporters and opponents have thus emerged.

3.1.1. Supportive Opinion

This view argues for granting artificial intelligence systems legal personality and independent liability similar to that of legal entities. This would enable them to act legally. This view is based on the argument that these entities have developed artificial awareness and perception, enabling them to make independent decisions[39]. Within the rules of the civil law for robots established in 2017[40], the European legislator recognised the possibility of granting legal personality to advanced artificial intelligence entities. Autonomous robots were considered electronic persons responsible for compensating for any harm they caused to others. This signifies a clear acknowledgement of the legal personality of robots, treating them as electronic entities that are accountable for any harm they cause[41].

However, this does not imply granting robots independence from humans; rather, the aim is to regulate their behaviour legally and hold them accountable for harmful actions in the absence of clear fault on the part of the producers or manufacturers[42]. Accordingly, recognising the legal personality of robots shifts responsibility from the producing and operating entities to the robot itself, but this does not achieve deterrence in relation to the established legal principles concerning persons and objects[43].

On 2 October 2017, Saudi Arabia granted legal personality and Saudi citizenship to the robot Sophia, produced by Hanson Robotics[44]. This conferred several other rights upon her, such as the right to life and freedom of expression. This contradicts the definition of a machine and elevates artificial intelligence to a status above humanity, its creator. This conflicts with God's inherent nature, which honours humans with reason above all other creatures.

3.1.2. Opposing Opinion

No matter how advanced artificial intelligence becomes, it will always be under human control. This means that it will never possess the independence and freedom of a natural person[45]. Therefore, it cannot be granted legal personality, as this is only applicable to legal entities that are subject to the guidance of their representatives. This does not apply to intelligent robots[46]. Furthermore, the intelligence exhibited by these entities is artificial, not natural, and lacks true awareness.

Having presented both perspectives, it can be asserted that artificial intelligence represents a unique type of entity. They do not fit the description of a human due to their lack of natural intelligence, nor the designation of a legal entity as they make autonomous decisions. While artificial intelligence has many advantages, it cannot be granted legal personality. It remains merely a versatile tool in human hands, developed through the accumulation of knowledge aimed at enhancing life, achieving well-being, and promoting sustainability in various areas — all of which are made possible by human intellect, which no other mind can match, even at high levels of intelligence.

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[36]- A legal person (juridical person) is a legal fiction defined as an assembly of persons and/or assets that acquires legal personality and financial independence by operation of law. See: Adja al-djilali, Introduction to Legal Sciences, Part 2, Bertin, Algeria, 2000, p. 188.

[37]- Order 75-58 dated 26 September 1975 containing the amended and completed Civil Code by Law No. 10-05 dated 20 July 2005, Official Journal of the People's Democratic Republic of Algeria, No. 44.

[38]- It refers to a group of persons or a group of assets or a group of persons and assets together such as companies and associations, pursuant to Article 50(1) of the Algerian Civil Code.

[39]- Zoubir Hamadi, "Conferring Legal Personality on Artificial Intelligence: For or Against?" Algerian Journal of Public and Comparative Law, Special Issue, September 2025, p. 42.

[40]- European Parliament resolution of 16 February 2017 with recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017IP0051. Accessed 07/11/2025 at 22:00.

[41]- Mohamed Irfan Al-Khatib , op. cit., p. 15.

[42]- Sherif Meriem , "Artificial Intelligence and Legal Personality," Algerian Journal of Public and Comparative Law, Sidi Bel Abbès University, Special Issue, September 2025, pp. 241–260 (cited p. 254).

[43]- Fatima Zahra Aakkou, op. cit., p. 124.

[44]- Zoubir Hamadi, op. cit., p. 43.

[45]- Sherif Mariam, op. cit., p. 39.

[46]- Zoubir Hamadi, op. cit., p. 40.

3.2. Liability for Damages Caused by Artificial Intelligence Actions

The use of artificial intelligence (AI) raises several challenges, particularly with regard to legal liability for its actions. This includes civil liability for compensating damages inflicted on others, as well as criminal liability for committing offences and violations. These issues are outlined below:

3.2.1. Civil Liability

The general rule of civil liability is that the party responsible for causing damage must compensate the affected party whenever the conditions are met. Anyone who causes harm to another through wrongdoing is obliged to provide compensation, as established by the Algerian legislator under Article 124 of the Civil Code. However, artificial intelligence does not qualify as a person under the law, which makes it difficult to apply this rule and complicates the proof of its civil liability since these entities are non-human and intangible. This makes it challenging to ascertain their faults. Nevertheless, contractual liability may arise when a seller fails to fulfil a contract, particularly when it involves an intelligent robot.

Classifying artificial intelligence within the category of objects leads to the application of existing legal rules related to objects and their transactions. Therefore, any damage caused by it to others falls under the liability rule for guardians of objects[47]. This means that the natural person who has actual control over the object in question is obliged to ensure that any damage arising from its use, management and oversight is compensated.

According to the Civil Code, this theory is based on Article 138. However, applying this concept to AI systems does not align with their inherent autonomous nature, based on the ability to think and learn independently[48]. Consequently, their actions cannot be predicted and they may not be under the control of their programmers and designers. Furthermore, the guardian has the authority to manage and use the object without oversight, which prevents the application of this theory to damages caused by these intelligent systems. Additionally, identifying the legally qualified person to carry the title of guardian is difficult, particularly given the multiple parties involved in these intelligent systems (programmers, manufacturers, and users). Therefore, in order to apply the guardianship theory, it is first necessary to define an accurate legal concept of the guardian.

Furthermore, describing artificial intelligence as a product of human creation may introduce flaws in the manufacturing, design and marketing processes. If damage occurs at any of these stages, the manufacturer is obliged to provide compensation in accordance with the 1985 European Directive, which adopts strict liability based on damage and causal connection — meaning liability without fault in cases of harm caused by defective products, provided that the defect caused the compensable damage.

Algerian legislation defines the producer under Article 140 bis[49] of the Algerian Civil Code 05-01 as encompassing both tangible and intangible goods, unlike Consumer Law 09-03[50], which is limited to tangible goods in its definition of a product. Article 3, Paragraph 10 of that law states: 'A product is any good or service that can be transferred with or without compensation.[51]' However, artificial intelligence is an unusual product presenting extraordinary risks arising from the producer's failure to fulfil one of their obligations.

The legislator recognises liability for defective products based on technical and industrial flaws, holding the producer accountable for damages caused by a defective product. Product liability is explicitly acknowledged as tort liability for damages arising from defects in products considered as movable property[52]. However, it is challenging to define a product within the context of artificial intelligence technologies because they may take the form of tangible items, such as robots, or be non-material, such as software and algorithms. Furthermore, as it is not managed by a single entity, such as the producer, programmer or developer, it is difficult to prove a defect in artificial intelligence systems. It is often difficult to distinguish between damage caused by these systems and damage arising from defects within the systems themselves.

Some have therefore argued that producers should be obligated to inform consumers of defects in these systems, since consumers typically lack the capacity to distinguish between harm caused by an incident involving these systems and harm resulting from a defect or flaw within them[53]. Therefore, the theory of defective products does not align well with the intangible nature of artificial intelligence.

Some also suggest that the complex nature of artificial intelligence necessitates the establishment of a joint liability system involving all those involved in production and usage[54], enabling victims to seek compensation from any of these parties, as seen in certain comparative legislation, such as Belgian legislation under Law No. 25 of 1991 regarding liability for defective products[55].

In light of advancements in the technological revolution, it is necessary to adapt traditional civil liability rules in order to address damages caused by artificial intelligence, or to explore theories that would grant legal personality to such entities. This culminated in the 'Responsible Human Agent' theory, which was established by the European Parliament in February 2017 and sets out special civil rules for robots in the realm of liability. The theory recommended granting legal personality to robots and imposing liability for their operation on a group of individuals based on faults in their manufacture and utilisation. Under this framework, robots are no longer described as objects, and the term 'electronic or human agent' is used instead, referring to an entity that legally assumes responsibility on behalf of a human without the presumption of fault, as affirmed by the rules of European civil law[56].

Comparative legislation such as the Jordanian National Charter for Artificial Intelligence Ethics has reinforced the idea of holding artificial intelligence systems liable for damages caused, attributing that liability to a natural person rather than the technical system

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[47]- Zoubir Hamadi, op. cit., p. 38.

[48]- Belfar Chaouki, "Civil Liability: A Solution to the Problem of AI Liability in the Field of Disease Diagnosis," Annals of Algiers University, Series 1, Vol. 39, No. 2 (2025), pp. 144–162, p. 154.

[49]- Article 140 bis of Law 05-01 dated 20-06-2005: A product is considered any movable property including movables attached to immovable property whether tangible or intangible, natural or artificial.

[50]- Law No. 09-03, dated 25 February 2009, concerning consumer protection and the fight against fraud (Official Journal of the People's Democratic Republic of Algeria, No. 15, March 2009).

[51]- Mohammed Ali Ahmad Al-Amawi, 'Legal Aspects of Civil Liability for Artificial Intelligence Applications in Jordanian Legislation', Al-Zaytoonah University Journal of Legal Studies, Special Issue, 2024, p. 128.

[52]- Belfar, Chaouki, op. cit., p. 154.

[53]- Antoine Lange, 'Artificial Intelligence and Legal Personality: Analysis of the Opportunity to Grant Legal Person Status in Belgian and European Law to AI Systems", Master of Laws, 2020–21, p. 43. Available at: https://dial-mem.test.bib.ucl.ac.be/server/api/core/bitstreams/d9013757-e33e-437d-88cf-453849103538/content. Accessed 01/01/2025 at 19:00.

[54]- Belfar Chaouki, op. cit., p. 157.

[55]- Antoine Lange, op. cit., p. 43.

[56]- Baha Fatima, op. cit., p. 414.

itself[57].

It should also be noted that, as of 20 October 2020[58], the European legislator has devised a system of operator liability as a basis for holding independent artificial intelligence systems accountable. This framework aims to facilitate compensation for individuals harmed by artificial intelligence technologies by establishing rules for civil liability claims against their operators. The operator of a high-risk AI system is strictly liable for any physical damage or harm resulting from the system's activities, devices or virtual processes[59].

3.2.2. Criminal Liability

As a general principle, there are two types of crime: harm crimes and endangerment crimes. The former involves actual and direct damage to a legally protected interest, while the latter does not require actual damage; rather, it is sufficient that the act has put the protected interest at risk. It should be noted that actions resulting from artificial intelligence systems present fertile ground for various transgressions that are prohibited by criminal law, leading to criminal liability. These violations necessitate a specific type of regulation aimed at achieving multifaceted societal protection, presenting a significant legal challenge with several obstacles.

The first of these concerns how to attribute a crime committed via artificial intelligence systems. For a crime to be committed, three elements must be present: a legal element, a material element and a moral element[60]. If any of these elements is absent, criminal liability cannot be established. Notably, crimes committed by artificial intelligence systems may not satisfy all these elements simultaneously, raising deeper issues regarding attribution, classification, and regulation.

How can the material and moral elements be conceived in actions characterised by technical autonomy? Assuming the legal and material elements are present, the moral element — criminal intent — remains absent because artificial intelligence systems are programmed for specific purposes and lack the will to commit a crime due to their lack of legal personality. Although these entities are intelligent, they are unaware of what is lawful or unlawful.

The second obstacle concerns who is criminally responsible for the crimes committed by artificial intelligence systems: is it the inventor of these systems, the user, the owner, or the machine that committed the crime? This question arises in cases such as a homicide resulting from an accident involving a self-driving car or a drone, as well as in situations like surgical robots causing the death of a patient or medical diagnoses made by artificial intelligence software[61].

Crimes committed by artificial intelligence could occur due to programming flaws, whether intentional or unintentional[62], or as a result of the owner's error or a manufacturing defect that fails to adhere to quality standards and security measures, or due to incorrect intervention by the operator[63]. Additionally, artificial intelligence could be used as a tool for committing crimes, in which case it will be subject to the same regulations concerning crime tools, including seizure, confiscation, and destruction[64]. The crime might also result from autonomous decisions made by these intelligent entities due to their acquired self-learning capabilities without intervention from the owner or fault from the manufacturer[65].

It seems that artificial intelligence is not legally responsible for its actions. Rather, it remains under human control because it is merely a programme. Therefore, scholars assert that AI is a tool created by humans for humans and should remain under their technical and legal control[66].

The third obstacle concerns intent versus negligence. Responsibility may arise from intent or negligence. Designers and programmers of artificial intelligence technologies may deliberately create programs containing easily exploitable vulnerabilities, thereby facilitating crime[67]. However, these crimes may also result from negligence and carelessness on the part of the designers, who fail to take the necessary precautions to prevent such occurrences. Determining liability depends on investigations by specialists in this field proving the user's intention to commit the crime and their awareness of the legal consequences of their actions — a challenging task requiring high technical skills and expertise.

Shifting responsibility onto the user or the company that produced the artificial intelligence technology could deter parties from utilising or developing this technology.

The fourth obstacle relates to punishment in the context of criminal liability. If the purpose of punishment is to inflict pain on the offender, this cannot be achieved with artificial intelligence, as it is considered immaterial. Furthermore, physical and financial penalties do not apply to it. For instance, it is impossible to execute a robot by disabling or destroying it, as this does not fulfil the objectives of punishment, given that it lacks human awareness. Similarly, imposing fines on a robot is ineffective as it does not have independent financial status; it operates on predetermined algorithms instead. Furthermore, modern penalties such as rehabilitation and reintegration into society cannot be applied as they are incompatible with its nature.

However, it may be possible to pursue criminal liability against users of artificial intelligence systems who have employed them as tools for criminal acts. This is because it is challenging to hold these intelligent entities criminally accountable in a way that aligns with their nature, especially in the absence of legal personality.

Thus, granting legal personality to artificial intelligence would lead to the application of criminal laws and punishments[68]. In the absence of legal personality for artificial intelligence, crimes go unpunished under the pretext that artificial intelligence has a unique nature that has not yet been legally defined, threatening societal security and posing a risk to public safety. Therefore, legislation,

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[57]- Mohammed Ali Ahmad Al-'Amawi, op. cit., p. 125.

[58]- Civil Liability Regime for Artificial Intelligence: European Parliament Resolution of 20 October 2020 with Recommendations to the Commission on a Civil Liability Regime for Artificial Intelligence (2020/2014(INL)), Official Journal of the European Union: https://eur-lex.europa.eu/legal-content/EN/TXT/. Accessed 05/07/2025 at 15:00.

[59]- Article 4 of the European Parliament resolution of 20 October 2020 states: 'The operator of a high-risk AI system shall be strictly liable for any harm or damage caused by physical or virtual activities, devices, or processes driven by that AI system.'

[60]- Criminal intent (mens rea) is the perpetrator's knowledge that they are committing an act that is defined as a crime under the law, and that they know this act is contrary to the law. See: Ihsan Bousqiaa, The Concise Textbook of General Criminal Law, Dar Home for Publishing and Distribution, 11th edition, Algeria, 2012, p. 119.

[61]- Rowena Rodrigues, op. cit., p. 5.

[62]- Yahya Ibrahim Dahshan, 'Criminal Liability for AI Crimes', Shari'a and Law Journal, No. 82, April 2020, Jordan, p. 133.

[63]- Allal Tahtah, 'Criminal Liability Arising from AI Intervention: A Cautious View Balancing Fixed Principles and Emerging Particularities', Algerian Journal of Public and Comparative Law, Special Issue, September 2025, p. 353.

[64]- Yahya Ibrahim Dahshan, 'Criminal Liability for AI Crimes', Shari'a and Law Journal, No. 82, April 2020, Jordan, p. 133.

[65]- Alexandre Vial, op. cit., p. 56.

[66]- Imad Abdul Rahim, op. cit., p. 22.

[67]- Ben Othman Farida, 'Artificial Intelligence (A Legal Approach)', Notebooks of Policy and Law, Vol. 12, No. 2, 2020, p. 166.

[68]- Allal Tahtah, op. cit., p. 354.

including Algerian law, must urgently regulate artificial intelligence systems to enable criminal accountability for offences committed by them through clear and explicit legal provisions. It is unjust to attribute the risks resulting from artificial intelligence to responsible natural persons when these technologies operate independently of them. This may discourage developers, producers and designers of artificial intelligence systems from advancing the field for fear of penalties.

3.3. Artificial Intelligence and the Protection of Certain Rights

One of the most prominent legal challenges posed by the use of artificial intelligence is the protection of intellectual property rights, privacy rights and the right to safeguard personal data. We will discuss these issues below:

3.3.1. Protection of Intellectual Property Rights

Intellectual property encompasses creations and inventions made by humans. When these creations originate from artificial intelligence, however, another legal challenge arises in this area, specifically regarding whether these systems possess the ability to invent and create, and whether artificial intelligence can have its own intellectual property rights — especially given the evolving concept of learning. In this context, scholars are divided into two schools of thought.

The first school views artificial intelligence as a type of digital work, similar to software programmes, and considers it a creative product deserving protection against any unlawful exploitation through technical measures[69]. The second school of thought denies this, arguing that AI does not possess legal personality and therefore cannot claim intellectual property rights, as human involvement is absent from this form of creativity. According to this view, literary and artistic works protected by copyright law embody the originality and personal character of their creators, forming the cornerstone of copyright protection and securing financial returns. However, artificial intelligence lacks the characteristics that would allow it to be deemed an author, since it is not a natural person[70]. Additionally, the criterion of originality is ambiguous and permits various legal interpretations. With artificial intelligence systems, it is difficult to determine who the author is — whether it is the works produced by algorithms and software, the algorithms themselves, the programmer or the user[71].

Furthermore, artificial intelligence lacks the creative spirit that defines human beings. Human creativity stems from feelings[72], emotions and past experiences, all of which are beyond the capabilities of artificial intelligence.

Notably, the 2024 regulation issued by the European Parliament regarding artificial intelligence attempted to balance the protection of copyright with the encouragement of innovation by stipulating the right to object and emphasising transparency. It recognised that using protected works to train AI models violates the rights of the relevant rights holders. In December 2023, The New York Times filed a lawsuit against OpenAI and Microsoft, accusing them of using its articles to train AI models[73].

In European legal cases, notable rulings include the 17th Chamber of the Paris Court's October 2013 decision to order Google to pay €4,000 for failing to remove search results in the Google Suggest case, and the Court of Justice of the European Union's February 2017 ruling on the liability of an online search engine operator in the Google Spain case[74].

In conclusion, artificial intelligence can be considered a tool that assists humans in innovation and invention, but it cannot be considered an inventor or author as it cannot operate without human input and all its outputs are the result of human efforts.

3.3.2. Protection of privacy

Artificial intelligence possesses advanced capabilities for collecting and analysing vast amounts of information (big data), which makes it difficult to secure the right to privacy and can lead to violations without proper authorisation or legal consent. The right to privacy is no longer inviolable; artificial intelligence applications can easily infringe it by monitoring personal data and information. This is because information is the fuel that powers these applications. Using these applications for algorithmic data processing enables the creation of knowledge about individuals, threatening their private lives[75].

In this context, research teams in psychology have employed these technologies to understand individuals' habits and preferences, which companies can then unlawfully exploit for profitable commercial purposes. Therefore, it is essential to mitigate these risks by providing legal and ethical protections for this right, and establishing a legal framework to ensure this protection. Data and information must be fully safeguarded to prevent violations[76].

The 2016 European directive on the protection of personal data for natural persons emphasised the need to protect individuals' privacy. Data protection now encompasses three processes: collection, analysis and dissemination. The European Law on Artificial Intelligence of 2024 has also classified the risks associated with the use of artificial intelligence into four categories (low, limited, high, and unacceptable risks), relying on the ethical principles established by the European Commission in 2019, which include the principles of privacy and data governance[77].

Referring to Algerian legislation, we find that it constitutionally guarantees individuals' right to privacy and the protection of their personal data[78]. A specific legislative framework has also been established through Law No. 18-07[79], as amended and supplemented.

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[69]- Ajja al-Jilali, 'Intellectual Property and Neighbouring Rights: Comparative Study, Part Five, Zein Legal Publications, 2012, p. 114.

[70]- Marie Rouxel, 'The Refusal to Recognise Author Status for Artificial Intelligence and Its Consequences', Master's thesis (Maîtrise en droit), Université Laval, Québec, Canada, and Université Paris-Saclay, Cachan, France, 2019, p. 28.

[71]- Ibid., p. 42.

[72]- Antoine Lange, op. cit., p. 52.

[73]- Ahmed Harir, 'Artificial Intelligence and Copyright: Risks and Means of Protection', Algerian Journal of Public and Comparative Law, Special Issue, September 2025, p. 66.

[74]- Judgment in the case of Google Spain (C-131/12), cited by Charlotte Troi in op. cit., pp. 34–35.

[75]- Pierre-Luc Déziel, 'The Limits of the Right to Privacy in the Age of AI: Algorithmic Groups, Individual Control, and the Information Processing Cycle', Les Cahiers de Propriété Intellectuelle, pp. 827–847 (citations on pp. 831 and 833).

[76]- Ridwan Bin Sari, op. cit., p. 28.

[77]- "A Historical Step: The World's First Comprehensive AI Law," an article published on July 15, 2024. Available at: https://iamaeg.net/ar/publications/articles/comprehensive-artificial-intelligence-law-2024. Accessed 10/12/2025 at 11:00.

[78]- Article 47 of the 2020 Constitutional Amendment provides: "Everyone has the right to the protection of their private life and honor." Everyone has the right to the confidentiality of their correspondence and private communications in any form. The protection of persons when processing personal data is a fundamental right."

[79]- Law No. 18-07, dated June 10, 2018, on the protection of natural persons with regard to the processing of personal data (Official Journal of the Republic, No. 34, dated June 10, 2018), as amended and supplemented by Law No. 25-11, dated July 24, 2025 (Official Journal of the

According to Article 45 bis 6 of this law, if processing data using new technologies (which could include artificial intelligence) is likely to pose high risks to individuals' rights, the data controller must conduct an impact assessment regarding that data. Additionally, Presidential Decree No. 23-73[80] established the National Authority for the Protection of Personal Data, providing a legal basis for protecting the right to privacy in light of technological advancements, especially with regard to the increasing use of artificial intelligence technologies. The legislator has also equipped the National Authority with regional centres responsible for monitoring and auditing, as set out in Article 27 bis of the latest amendment to Law 18-07 in 2025. This amendment also created the position of Data Protection Officer.

Based on the above, it can be concluded that the Algerian legislature has introduced stricter provisions for safeguarding personal data and defined the obligations of entities involved in collecting and analysing this data using artificial intelligence technologies, even implicitly.

4. CONCLUSION

Although artificial intelligence offers many advantages across various aspects of life, its potential to improve individual lives, develop communities and achieve sustainability also presents several legal challenges. These challenges necessitate legislation that can encompass its characteristics and provide the necessary protection against its technologies, by enacting substantive provisions that must be safeguarded against violations. Rather than relying solely on non-binding ethical guidelines, legislation must be enacted. Reliance on the latter undermines the system of rights and destabilises the legal security of society.

The findings that emerged from this research paper include:

- Artificial intelligence is a new term with a unique nature that lacks a clear legal definition. It involves designing and developing electronic systems and software that can mimic human behaviour through various features. The most significant of these is the ability to learn and perceive, which gives the systems independence of action and enables them to produce tangible effects that are independent of the user's will.
- There are multiple opinions, both supportive and oppositional, regarding the idea of granting legal personality to artificial intelligence. The current legal classification of legal personality does not recognise electronic legal persons alongside natural and legal persons, unless the theory of the human representative is considered.
- Granting artificial intelligence legal personality would entail a straightforward acknowledgment of an entity parallel to natural persons, thereby recognizing a society parallel to humanity, which remains in the realm of science fiction and does not align with the current legal reality.
- Traditional legal foundations of both criminal and civil liability do not correspond with the developments in artificial intelligence, necessitating either the adaptation of existing rules to the unique nature of these intelligent entities or the establishment of new rules specifically for them.
- It is not possible to hold artificial intelligence criminally liable, nor do various penalties apply to it in light of the absence of recognition of its legal personality.
- There is significant difficulty in determining civil liability for risks arising from artificial intelligence systems according to traditional liability rules, alongside the emergence of the European-origin theory of the human representative.
- In the eyes of the law, artificial intelligence programmes are merely tools that execute commands issued by users. However, they do not provide sufficient protection for users against the consequences of these programmes' actions.

In light of these findings, we propose the following:

- Clear rules should be established for civil and criminal liability for damages caused by artificial intelligence systems, detailing how compensation is handled in cases of harm or risk.
- Develop a legislative framework that clarifies the safe use of artificial intelligence, achieving a balance between fostering technological innovation and creativity, and protecting individual rights, particularly intellectual property rights and the right to privacy.
- Formulate a legal framework to regulate intellectual property rights related to artificial intelligence.
- Amend existing laws to align them with artificial intelligence technologies in light of accelerating changes, thereby creating a well-defined legislative policy to govern them within the virtual environment.
- Expand the scope of liability for designers, manufacturers and users to promote shared responsibility.
- Implement preventive measures when producing artificial intelligence systems by developing software and algorithms that protect the parties involved in terms of sourcing, presentation or upon request.

REFERENCES

Adja al-Djilali. (2000). *Introduction to legal sciences* (Part 2). Bertin.

Aakkou, F. Z. (2025). The necessity of recognising the idea of legal personality for robots under certain legal guards. *Algerian Journal of Public and Comparative Law*, Special Issue, 113–125.

Al-Amawi, M. A. A. (2024). Legal aspects of civil liability for artificial intelligence applications in Jordanian legislation. *Al-Zaytoonah University Journal of Legal Studies*, Special Issue.

Al-Douhiyat, I. A. R. (2019). Toward a legal regulation of artificial intelligence in our lives: The problematic relationship between machine and human. *Al-Ijtihad Journal of Legal and Economic Studies, 8*(5), 14–35.

Al-Hamouri, N. F. (2024). *Artificial intelligence: Its concept, importance and patterns of legal responsibility according to international agreements and national legislation* (1st ed.). Dar Al-Thaqafa.

Al-Khatib, M. I. (2020). Artificial intelligence and the law: A comparative study of French and Qatari civil legislation. *Journal of Legal Studies*. https://digitalcommons.bau.edu.lb/lsjournal/

Al-Nashmi, A. A. A. (2024). Ethics of employing artificial intelligence among law students. *Journal of the International College of Law, 13*(1).

People's Democratic Republic of Algeria, No. 48, dated July 24, 2025).

[80]- Presidential Decree No. 23-73, dated February 14, 2023, determines the tasks of the Executive Secretariat and the National Authority for the Protection of Personal Data, as well as the methods of its organization and operation. It was published in the Official Journal of the People's Democratic Republic of Algeria, No. 10, on February 15, 2023.

Al-Hadī, M. bin M. (2021). *Artificial intelligence: Its features and applications*. Egyptian-Lebanese Dar.
Al-Mawrid dictionary. (2008). *Al-Mawrid Al-Hadith*. Dar Al-Ilm Lil-Malayin.
Baalbeki, M., & Baalbeki, R. (2008). *Al-Mawrid Al-Hadith dictionary*. Dar Al-Ilm Lil-Malayin.
Belfar, C. (2025). Civil liability as a solution to AI liability in disease diagnosis. *Annals of Algiers University, 39*(2), 144–162.
Ben Sari, R. (2025). Applications of artificial intelligence in the field of law. *Notebooks of Policy and Law, 17*(1), 31–32.
Bousqiaa, I. (2012). *The concise textbook of general criminal law* (11th ed.). Dar Home.
Charter of Fundamental Rights / Constitutional Amendment (Algeria). (2020).
Chaouki, B. (2025). Civil liability: A solution to AI liability in disease diagnosis. *Annals of Algiers University*.
Déziel, P.-L. (n.d.). The limits of the right to privacy in the age of AI. *Les Cahiers de Propriété Intellectuelle*, 827–847.
European Parliament. (2017). *Civil law rules on robotics (2015/2103(INL))*. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017IP0051
European Parliament. (2020). *Civil liability regime for artificial intelligence (2020/2014(INL))*. Official Journal of the European Union.
European Union. (2016). *Regulation (EU) 2016/679 (General Data Protection Regulation)*.
European Union. (2024). *Regulation (EU) 2024/1689 (Artificial Intelligence Act).* https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32024R1689
Fatima, B. (2023). Artificial intelligence systems and the legal challenges of their personification. *Journal of Research in Law and Political Science, 9*(1), 412–427.
Hamadi, Z. (2025). Conferring legal personality on artificial intelligence: For or against? *Algerian Journal of Public and Comparative Law*, Special Issue.
HURDO Centre. (n.d.). *Digitisation and protection of digital heritage*. https://fr.scribd.com
Intermediate Dictionary – Arabic Language Academy. (2004). *Intermediate dictionary* (4th ed.). Al-Shorouk International Library.
Lange, A. (2021). *Artificial intelligence and legal personality* (Master's thesis). UCL. https://dial-mem.test.bib.ucl.ac.be/
Monett, D., Lewis, C. W. P., & Thorisson, K. R. (2019). On defining artificial intelligence. *Journal of Artificial General Intelligence, 10*(2), 1–37. https://doi.org/10.2478/jagi-2019-0002
Renondin de Hauteclocque, S. (2024). *Artificial intelligence: Seeking a legal framework* (PhD thesis). University of Paris Cité.
Rodrigues, R. (n.d.). Legal and human rights issues of AI: Gaps, challenges and vulnerabilities. https://text2fa.ir
Rouxel, M. (2019). *The refusal to recognise author status for artificial intelligence* (Master's thesis). Université Laval & Université Paris-Saclay.
Saleh, F. A. I. (2009). *The impact of AI and emotional intelligence on decision quality* (Master's thesis). Middle East University.
Tahtah, A. (2025). Criminal liability arising from AI intervention. *Algerian Journal of Public and Comparative Law*, Special Issue.
Troi, C. (2017). *Law put to the test by artificial intelligence* (Master's thesis). https://dumas.ccsd.cnrs.fr/dumas-02177137
Vial, A. (2022). *Civil liability regime for artificial intelligence* (PhD thesis). University of Bourgogne Franche-Comté.
Wasfi, R. (2008). *Robots in the world of tomorrow*. Dar Al-Maaref.
Algeria. (2009). *Law No. 09-03 on consumer protection and the fight against fraud.*
Algeria. (2009). *Law No. 09-04 on prevention of ICT crimes.*
Algeria. (2015). *Law No. 15-03 on modernization of justice.*
Algeria. (2015). *Law No. 15-04 on electronic signature and authentication.*
Algeria. (2018). *Law No. 18-05 on electronic commerce.*
Algeria. (2018, amended 2025). *Law No. 18-07 on protection of personal data.*
Algeria. (2023). *Presidential Decree No. 23-73 on National Authority for Personal Data Protection.*
Algeria. (1975/2005). *Civil Code (Order 75-58 as amended by Law 10-05).*