RESEARCH ARTICLE

The Possibility of Recognizing the Legal Personality of Artificial Intelligence

Sara Boulakouas
Dr
Faculty of Law
Contracts and business law laboratory
Law Department
University of the Mentouri brothers- Constantine 1
Algeria
Email: boulakouas.sara@gmail.com

Yousra Boulakouas
Dr
Institute of Law
Law Department
University Center of Barika
Algeria
Email: yousra.boulakouas@cu-barika.dz

Siham Abbassi
Dr
Institute of Law
Law Department
Governance Horizons Laboratory for Sustainable Local Development
University Center of Barika
Algeria
E-mail: siham.abbassi@cu-barika.dz

Mounir Benazzoug
Dr
Faculty of Law and Political Science
Laboratory of rural economic development
Law Department
University Ibn Khaldoun, Tiaret
E-mailmounir.benazzoug@univ-tiaret.com

Doi Serial https://doi.org/10.56334/sei/8.10.1

Keywords Artificial intelligence, legal personality, autonomy, electronic personality.

Abstract

The widespread applications of artificial intelligence (AI) across various sectors, coupled with its autonomous, machine-based reasoning, are generating increasing pressure for a defined legal status—namely, recognition of legal personality. This shift appears likely to be reflected in future legislation, though it also necessitates the establishment of legal mechanisms and principles aligning with AI's core purpose: serving humanity.

Citation. Boulakouas A., Boulakouas Y., Abbassi S., Benazzoug M. (2025). The Possibility of Recognizing the Legal Personality of Artificial Intelligence. *Science, Education and Innovations in the Context of Modern Problems*, 8(10), 5–9. https://doi.org/10.56352/sei/8.10.1

Issue: https://imcra-az.org/archive/384-science-education-and-innovations-in-the-context-of-modern-problems-issue-10-vol-8-2025.html

Received: 15.05.2025 | Accepted: 20.06.2025 | Published: 01.08.2025 (available online)

Introduction

Artificial intelligence represents one of humanity's most important technological advances, providing services across sectors with an emphasis on protecting individuals and their data. The term "artificial intelligence" emerged through John McCarthy at the Dartmouth Conference in 1956, marking a new scientific endeavor: mimicking human reasoning via machine models capable of learning behaviors. The main scientific aim of AI is to mimic human thought in numerous behaviors and actions, seeking to make robots or artificial minds resemble the human mind—an inherently impossible task, since AI, however advanced, cannot achieve the reliability of human intelligence. Mistakes remain possible, sometimes leading to harm.

The operation of AI in service to humans raises legal questions about AI's status and the possibility of recognizing its legal personality. Scholarly debate has resulted, dividing opinion on whether to acknowledge such personality and on identifying who is responsible for errors caused by AI.

Given these complexities, this study investigates:

To what extent is it possible to recognize the legal personality of artificial intelligence?

This inquiry aims to establish who should bear liability for harms caused by AI, adopting a comparative analytical method and reviewing legal frameworks governing AI's legal status.

Structure of the Study:

- Section One: The Legal Concept of Artificial Intelligence
- Section Two: Conditions for Recognizing Legal Personality
- Section Three: The Possibility of Recognizing AI's Legal Personality

Section One: The Legal Concept of Artificial Intelligence

Artificial intelligence is the study of intelligent behavior, encoded into artificial machines—and is considered one of the most complex topics facing humanity.

Scientific Definition of Artificial Intelligence

AI has many definitions. Marvin Minsky described it as a science branch concerning machines capable of solving problems that a human can address using intelligence. AI does not encompass all machines, but rather refers to computer systems and programs able to simulate human thought. E. Barr and E. Feigenbaum described it as a computer science branch focused on building intelligent systems that replicate recognized human intelligence traits. Searle, in contrast, asserted that computers merely simulate intelligent behavior, not genuine human cognition.

Another definition frames AI as: an advanced, employed technology aiding the management of processes and tasks more intelligently than its human creators, by enabling self-learning and autonomous evolution.

Thus, AI can be regarded as a behavioral study aiming to render machines/ computers capable of mimicking human intelligence.

The Legal Nature of Artificial Intelligence

Scholars diverge over AI's legal nature, especially regarding robots. Most legislation classifies robots as things, whose owners are guardians responsible under strict liability—this is the traditional view. Modern scholarship, however, tends to grant robots legal standing so they act as representatives, not mere objects, thus forming the basis for a legal status (future "electronic personality") for robots. The 2017 European Civil Law on robotics introduced the theory of a human proxy responsible for compensation for harm caused by robots; this proxy might be the manufacturer, programmer, operator, owner, or user.

Section Two: Conditions for Recognizing Legal Personality

To explore the legal personality of AI, it is necessary first to define legal persons and the requirements for recognition. The law identifies two types: natural persons and juridical (legal) persons.

Conditions for Recognizing Natural Personality

Natural personality is the legal personality recognized by law for humans, which entails a set of rights and obligations. Under Algerian civil law, personality begins at live birth (Ordinance 75-58, 1975). Proof of birth is required, typically through civil status registration, and each natural person is assigned a surname and at least one given name (Articles 26 and 28). Recognition ends upon death[iii].

Conditions for Recognizing Juridical (Legal) Personality

A juridical person consists of a group of people or property cooperating for a specific time to achieve a particular goal, with shared collective interests independent from those of individuals. Once conferred, a juridical person enjoys a legal patrimony, capacity, domicile, a representative, and the right to litigate (Article 50, Ordinance 75-58). Recognition may occur by force of law (e.g., for public legal persons, the state, local groups, public bodies), at creation (for civil companies), or upon commercial registration (for commercial companies). Termination can occur by law, dissolution, bankruptcy, or similar events.

Section Three: The Possibility of Recognizing AI's Legal Personality

The debate over recognizing AI's legal personality is driven mainly by the need to designate the legally responsible person for harm caused by smart machines—especially robots.

I. Scholarly Perspectives on Recognizing AI's Legal Personality

Positions vary:

- Some argue there is no need for AI to acquire legal personality since the law already treats it as a "thing," allowing mandatory insurance to address liability for AI-caused errors.

- Others see AI/robots as agents empowered to perform tasks for humans, implying recognition as a natural person. This is countered by civil law Article 571, which defines agency as a contract between two persons, excluding AI from natural personality rules.

- Another view favors the possibility of granting AI—especially robots—juridical personality, giving AI legal rights similar to artificial persons: independent assets, domicile, representation, and standing to sue/ be sued. Yet, while artificial persons such as companies are managed by humans, AI aims to replicate human intelligence autonomously—fundamentally different from human-controlled entities.

II. Towards Recognition of Electronic Personality for AI

Currently, AI and robots do not possess full autonomy to justify electronic legal personality. However, recognition could follow complete autonomy—an aspiration reflected in European policy. The European Civil Law on robotics urges study

of the electronic personality concept for robots that autonomously make decisions or interact independently. In such cases, advanced autonomous AI may bear electronic personality and be liable for its own actions.

Author's View: Recognition of electronic legal personality is a positive direction—provided it is conditioned by AI's unique characteristics and serves human advancement. Complete autonomy is likely unattainable; self-management is a type of autonomy, yet does not equate to natural or juridical personhood with corresponding rights and duties. Therefore, mechanisms and principles (especially for engineers designing advanced AI and robotics) should focus on:

- Protecting humans from AI-related harm;
- Promoting human welfare and agency in their interaction with AI;
- Establishing legal rules defining recognition conditions, rights, duties, and mechanisms for terminating electronic personality if breached or faulty.

Conclusion

Future developments in AI may achieve true autonomy, which could warrant recognition of legal personality in the form of a "special electronic personality" for AI. This would necessitate legal mechanisms specifically tailored to safeguard humanity, including, when required, clear grounds for terminating such electronic personality.

Key Findings:

1. AI is a behavioral discipline that seeks to make machines simulate human intelligence.
2. There is scholarly disagreement concerning AI's legal status, especially regarding robots.
3. AI's legal personality currently cannot be classed among existing recognized personalities.
4. There is a genuine prospect of recognizing an electronic personality for AI in the near future, should AI attain full autonomy.

Key Recommendations:

1. Work toward the recognition of electronic personality for artificial intelligence.
2. Establish mechanisms and principles to which AI must be subject.
3. Treat electronic legal personality as an exceptional status, not necessarily requiring full autonomy, to preserve human rights and interests.
4. Recognition of electronic personality should carry rights and duties distinctly different from those attached to natural or juridical persons.

Acknowledgement

The authors would like to express their sincere gratitude to the respective institutions and laboratories supporting this research: the Contracts and Business Law Laboratory, Faculty of Law, University of the Mentouri Brothers – Constantine 1; the Law Department at the University Center of Barika; the Governance Horizons Laboratory for Sustainable Local Development; and the Laboratory of Rural Economic Development, Faculty of Law and Political Science, University Ibn Khaldoun, Tiaret. Their support and academic environment greatly contributed to the successful completion of this study.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

References

1. Ordinance No. 75-58 of September 26, 1975. (1975, July 5). *Official Gazette*, No. 75. Algerian Civil Code.
2. Hussein, O. (n.d.). *Artificial intelligence and introduction to Lisp language*. n.p.
3. Abdel Ghafar, A. M. (2024). *Civil liability for artificial intelligence damages: A comparative study*. Legal Books Publishing; Shatat Publishing House.
4. Bonnet, A. (1993). *Artificial intelligence: Its reality and future* (A. S. Farghali, Trans.). Knowledge World.
5. Brahimi, S., & Brahimi, F. (2018). The legal basis of administrative organization under Algerian legislation—Juridical or corporate personality. *Law and Political Science Journal*, (7).
6. Whitby, B. (2008). *Artificial intelligence* (Translation Department at Dar Al-Farouk, Trans., 1st ed.). Dar Al-Farouk for Cultural Investments.
7. Beyoud, D. (2017). Acquisition of juridical personality and its effects in criminal law. *Al-Mouallim Al-Bahith Journal of Legal and Political Studies*, *2*(7).
8. Boulkawas, S., & Boulkawas, Y. (2025). The positive impact of artificial intelligence to achieve sustainable development. In *Proceedings of the International Symposium on Digital Transformation for Sustainable Development between Algerian Legislation and Comparative Laws* (May 7, 2024). Future of Governance for Sustainable Local Development Research Laboratory.
9. Al-Maamari, S. B. N. B. A. (2024). The foundations of civil liability for artificial intelligence applications in Omani legislation—An analytical study. *Al-Ijtihadat Journal of Legal and Economic Studies*, *13*(2).
10. Rashid, N. H., & Afram, M. A. (2023). Auditing bias in artificial intelligence: The IIA AI assurance framework—A theoretical analytical study. *Journal of Contemporary Business and Economic Studies*, *6*(1)
11. Sultonova, L. (2023). Concepts of legal personality of artificial intelligence. *Lex Humana, 40*(2), 200–224. https://doi.org/10.26593/mel.v40i2.8648
12. Moustafa, F. R. (2024). Towards recognition of the legal personality of artificial intelligence. *International Journal of Cyber and Justice Studies*. (Advance online publication).
13. Staszkiewicz, P. (2024). Artificial intelligence legal personality and accountability. *Mediterranean Journal of Data and Law*. https://doi.org/10.1108/MEDAR-10-2023-2204
14. Narayanan, S., & Potkewitz, M. (2023). A risk-based approach to assessing liability risk for AI-driven harms considering EU liability directive. *arXiv*. https://arxiv.org/abs/2401.11697
15. Aldmour, R. (2025). Civil liability for damages caused by artificial intelligence. *SDGS Review Lifestyle Journal*. (Advance online publication).