



ARTIFICIAL INTELLIGENCE AUTHORITY -VISION 2030

KEZRANE Mustapha

University Center of Aflou, Algeria

m.kezrane@cu-aflou.edu.dz

Legal and Economic studies laboratory

BENSALEM Mokhtar*

University Center of Aflou, Algeria

m.bensalem@cu-aflou.edu.dz

Legal and Economic studies laboratory

Send Article Date: 25-08-2025

Date of acceptance of the article: 22-11-2025

Abstract:

The transition of Algeria into the ranks of leading countries in the field of artificial intelligence requires the establishment of a national specialized authority entrusted with the tasks of regulating, guiding, and coordinating national efforts in this vital sector, within a clear legal and institutional framework.

This comes in the context of supporting innovation, enhancing scientific research, and developing practical applications in line with the principles of privacy protection, safeguarding personal data, and ensuring the ethical and responsible use of technologies.

Despite the presence of promising scientific and technological initiatives at both the academic and industrial levels, the absence of direct institutional coordination limits their effectiveness and their ability to impact the national economy.

Algeria's Vision 2030 thus calls for the establishment of a legislative and technological infrastructure capable of stimulating investment in artificial intelligence, encouraging the transfer and localization of technology, and training highly qualified human resources. It is also necessary to adopt mechanisms for public-private partnerships and to draw upon successful international experiences, in order to secure Algeria an advanced position among active countries in the digital economy and to strengthen its regional and international standing in this strategic field.

Keywords: Artificial Intelligence, Independent Administrative Authority, Institutional Governance, Digital Economy.

Introduction:

Digital transformations and the advancement of artificial intelligence technologies constitute a pivotal element in the

*BENSALEM Mokhtar.



modernization of economic, administrative, security, and societal systems. States have increasingly embraced them given their necessity, particularly in recent years. However, despite the considerable developmental opportunities that countries have pursued to enhance economic and social growth, such efforts remain limited unless aligned with the global shift toward artificial intelligence. This reality has demonstrated the State's pressing need to establish a unified institutional and legal framework capable of directing these transformations toward the public good while safeguarding against their potential risks.

1/Research Objectives

This research aims to consolidate and institutionalize individual efforts in the field of artificial intelligence through a single administrative channel supported by robust infrastructure and advanced, secure service systems. Indeed, modern technical expertise remains fragmented and weak unless reinforced by practical application under the supervision of professional management.

This proposed authority is specifically designed to coordinate between governmental and non-governmental administrations in order to support the national policy directed at developing the national economy beyond a rentier system and investing in modern economic alternatives. Such coordination seeks to avoid resource waste and the escalation of risks, thereby ensuring the existence of structured administrative visions that incorporate monitoring, planning, and coordination.

Moreover, no innovative system—especially one linked to artificial intelligence—is entirely free from hidden flaws. It remains subject to experimentation and careful oversight, taking into account the precautionary principle prior to and during public use. Accordingly, the presence of a general supervisory administrative authority capable of immediate and automated intervention would significantly mitigate potential risks and disruptions.

In addition, the establishment of a legally recognized authority, endorsed by the competent public powers, would strengthen the protection of citizens' personal data, safeguard confidentiality, and uphold security and safety standards in order to prevent cyber intrusions, given that such an administrative body operates in coordination with judicial, security, and other relevant institutions.

2/Research Problem

Is it possible to establish an independent national authority for artificial intelligence to regulate AI applications in smart cities while achieving a balance between fostering economic innovation and ensuring the legal and regulatory protection of society?

3/Methodology

To conduct a detailed study, the following approaches will be adopted:

Analytical Method: to collect and examine scattered legal texts and carry out in-depth analysis in order to refine and define the relevant concepts.

Descriptive Method: to present and clarify the definitions and concepts related to the subject.

4/Proposed Outline

SECTION I: Theoretical Framework of the Artificial Intelligence Authority

First Requirement: The Concept of the Artificial Intelligence Authority.

Second Requirement: The Scope of the Artificial Intelligence Authority.

SECTION II : The Rationale Behind Proposing an Artificial Intelligence Authority

First Requirement: Justifications for Establishing an Artificial Intelligence Authority.

Second Requirement: Leading Models and Experiences in Implementing Artificial Intelligence Authorities.



SECTION I : Theoretical Framework of the Artificial Intelligence Authority

The proposal to establish an administrative authority specialized in artificial intelligence—combining both information gathering and decision-making functions—requires the creation of a comprehensive institutional framework that addresses various dimensions, starting with the administrative and organizational aspects, moving through the technical and technological dimensions, and ultimately ensuring the anticipated economic benefits.

This concept has been institutionalized by several leading scientific nations through the establishment of high-level advisory councils or authoritative administrative bodies directly linked to decision-making power, with the aim of achieving predetermined strategic objectives. These objectives will be examined in detail throughout this research.

First Requirement: The Concept of the Artificial Intelligence Authority.

The Artificial Intelligence Authority can be defined based on its establishment and the entity it reports to. In our proposal, it is conceived as a specialized and independent administrative body, with both legal and technical dimensions, directly affiliated with the Presidency. It would be established by law, which regulates its structure and operations, and grants it full powers to ensure effective and comprehensive implementation of its mandate.

It is worth noting that Algeria has already established the High Commission for Digitalization within the framework of the 2025–2030 strategic vision, aiming to advance administrative governance and sectoral digitalization.(hcn,2024) However this institution does not specifically address artificial intelligence in its broad sense, as the scope of AI goes far beyond mere digitalization.

The essential features of the proposed authority can be outlined as follows:

Paragraph1:Administrative nature.

It is a public legal entity whose members are appointed by the Head of State, following consultation with experts. Members are appointed by presidential decree for a term of up to five (5) years, renewable once.

Paragraph2:Function.

The authority operates both as an advisory council and an executive body. It comprises specialized technical divisions that fulfill its mandate, with the possibility of expanding its consultative functions whenever required by the public interest. The authority also issues binding decisions with legal effect, subject to judicial appeal.

Paragraph3: Jurisdiction.

As a national coordinating body, the authority is entrusted with several competences, including:

- Oversight and reassessment of AI applications.
- Coordination among ministerial sectors relying on AI systems.
- Expanding research and studies on AI while addressing its risks and mitigating associated concerns.
- Establishing secure infrastructures and public policies to prevent data breaches and cyber threats.
- Preparing general reports, particularly economic ones, highlighting the positive outcomes resulting from the authority's work.
- Preface on the first requirement and the issues to be addressed.

Second Requirement: The Scope of the Artificial Intelligence Authority.

As a starting point for adopting and implementing precise information systems, it is necessary to address all their aspects. Therefore, defining the areas of competence of the Artificial Intelligence Authority requires deep scrutiny in order to reach a satisfactory outcome.

The main pillar upon which the Authority is based is transparency, meaning that there must be an answer to every



question and a rationale behind every action. Thus, the existence of programs and mechanisms relying on artificial intelligence implies the presence of a programming background and secure cryptographic systems, protected either as computer software or, more broadly, as intellectual property rights.

Such human efforts and the intellectual capacities of innovators and creators may pose legal challenges if not fully disclosed, as they could result in serious consequences for the economy or information security. Hence, while the decision-maker is usually the originator of ideas, in such cases, errors might occur that no individual can bear alone.

From this standpoint, the existence of an independent administrative authority, capable of accessing the intellectual secrets and mental efforts of individuals while protecting their ownership rights, would mitigate risks, shield them from liability, and ensure transparency.

Indeed, the European Union Artificial Intelligence Act imposes transparency obligations specifically for high-risk AI systems, requiring providers to supply clear instructions regarding the capabilities and limitations of the system and to provide information that explains how to interpret its outputs. These obligations were formulated with balance in mind, adding practical conditions concerning the extent and nature of disclosure. (lex.europa,2024)

The Authority's scope can therefore be summarized in the following areas:

Paragraph1 : The Security Domain:

Security applications represent one of the most prominent areas of the Artificial Intelligence Authority's work, where AI can be leveraged in big data analysis, threat prediction, and risk management. Intelligent systems are capable of processing massive amounts of information gathered from cameras, sensors, and open-source intelligence, thereby enabling the prediction of crimes or attacks before they occur—what is commonly referred to as predictive security. (Brundage, 2018)

The Authority also plays a role in setting standards to ensure that privacy is not violated when using surveillance technologies and in verifying compliance with national and international laws. Nevertheless, the Authority must establish clear safeguards to prevent algorithmic bias, which could otherwise result in unfair security-related decisions.

Paragraph 2 : The Healthcare Domain:

In the healthcare sector, the Artificial Intelligence Authority can regulate and support the use of medical algorithms in early diagnosis, medical imaging analysis, and the management of electronic patient records. AI has the potential to reduce medical errors by providing accurate treatment recommendations based on the analysis of thousands of similar cases, and it also enables the development of personalized medicine tailored to the patient's genetic profile. However, the Authority must establish strict policies to safeguard the confidentiality of health data and to prevent its misuse, particularly given the high commercial value of such information. (Topol, 2019)

Paragraph 3 : The Economic Domain:

The Artificial Intelligence Authority can establish frameworks for leveraging algorithms in market forecasting, optimizing supply chains, and developing smart cities. It may also play a role in fostering innovation and entrepreneurship by supporting start-ups that develop intelligent solutions and by ensuring a legislative environment that attracts investment. However, the Authority must also take into account the risks of job displacement caused by automation and work on strategies for workforce reskilling through training programs in future-oriented skills. (Bughin , 2018)



SECTION II : The Rationale Behind Proposing an Artificial Intelligence Authority

As is well known, outlining a future roadmap to achieve significant gains requires going through a transitional period during which deep reforms must be carried out, particularly in the field of legislation and in raising societal awareness. Therefore, the essential key points necessary to achieve the desired success will be elaborated upon later.

First Requirement: Justifications for Establishing an Artificial Intelligence Authority.

Since, in recent times, nations have come to be measured by the extent of their mastery of technology and their reliance on applications of artificial intelligence, implementing reforms in the field of digitalization has become an unavoidable necessity, particularly on the part of active national and administrative bodies. Therefore, the key points in this regard can be proposed as follows:

Paragraph1 : Lack of coordination among stakeholders in the field of digitalization and artificial intelligence:(hcn, 2024)

In fact, making efforts alone is not sufficient to achieve the desired outcome; there must be well-structured coordination among the actors operating in this field, particularly those engaged in research and development in artificial intelligence, as well as national institutions, research centers, and the private sector.

Paragraph 2 : Ethical and Legal Challenges:

The use of modern technologies in the field of artificial intelligence requires a comprehensive understanding of the anticipated risks and ways to avoid them. These include issues related to citizens' personal information and data, as well as the growing threat of cyberattacks.

Paragraph 3 : Weakness in Innovation and Technical Control:

One of the justifications for establishing a specialized authority in this field is to unify and direct efforts in a way that serves the public interest and enhances local development, particularly given that the field of artificial intelligence remains fertile and dynamic.

Paragraph 4 : Proactivity and Prevention:

In light of keeping pace with recent developments, it has become imperative to follow the example of advanced countries that lead in the field of artificial intelligence. Therefore, creating new opportunities and ensuring a forward-looking approach place us in a constant position of advantage in addressing upcoming challenges. (hcn, 2024)

Second Requirement: Leading Models and Experiences in Implementing Artificial Intelligence Authorities.

There are countries that have made significant efforts in shaping public policy to ensure a successful future vision. Among the most notable countries that have achieved progress in this field are:

Paragraph1 : The United Arab Emirates (UAE):

The UAE is considered one of the first countries to give advanced institutional attention to artificial intelligence.(ai.gov.ae,2025) In 2017, it established the world's first Ministry of Artificial Intelligence, in a strategic step aimed at positioning the UAE as a global hub for the development and application of this technology. The country launched the UAE Artificial Intelligence Strategy 2031, which sets ambitious goals such as improving government performance, reducing costs, and increasing productivity by up to 50% in key sectors such as health, education, and transportation.

The strategy also includes plans to integrate AI technologies into public services and to foster innovation through partnerships with the private sector and startups. Furthermore, the UAE has



focused on preparing a national workforce specialized in this field through advanced educational and training programs, which has made the country an attractive environment for technological investment.

Paragraph 2 : Singapore:

Singapore has adopted an approach based on the integration of scientific research and practical applications through the establishment of the National AI Office (AI Singapore,2025), a national body that connects universities and research centers with startups and industry. This office aims to develop national smart projects that address local challenges, such as traffic management, healthcare, and the improvement of digital infrastructure.

Singapore also pursues a strong incentive policy to support innovation by offering generous funding grants and providing a "sandbox" environment to test new applications before their large-scale deployment. Moreover, the country emphasizes the development of national competencies through high-level training programs in fields such as machine learning and data analytics, which has enabled Singapore to emerge as a key player in the Asian AI market.

Paragraph 3 : European Union:

The European Union has adopted a comprehensive approach centered on establishing unified regulatory frameworks, funding research, and promoting data sharing among member states. The EU has launched an integrated plan to invest in artificial intelligence with the aim of making Europe a globally competitive environment, while placing a strong emphasis on fostering trust in this technology.

A key feature of this plan is the classification of risks, whereby high-risk applications—such as biometric surveillance systems or AI used in judicial decision-making—are subjected to strict standards concerning transparency, explainability, and the protection of fundamental rights. Furthermore, the EU seeks to strike a balance between innovation and the safeguarding of

societal values by promoting open research and developing robust data infrastructure.

Conclusion:

Based on the discussion presented in this research regarding artificial intelligence and the pathways to leadership in this field, Algeria emerges as a strategically positioned country capable of keeping pace with modernization and digital transformation. This potential stems from its abundant human capital, supportive natural resources for financing, and its status as one of the fastest-growing economies in Africa—factors that could enable it to gain a competitive foothold in the African market in the future.

Nevertheless, several challenges remain in the digital and AI domains, which call for the adoption of an urgent policy framework to ensure a high success rate. The most significant of these include:

- Legislative and regulatory reforms that support the field of artificial intelligence and foster innovation.
- Strengthening innovation through integration and connectivity between research centers, business incubators, and AI hubs.
- Providing tax incentives for pioneering companies operating in the field of artificial intelligence.
- Achieving a smooth transition from being a consumer of technology to becoming a producer and exporter, starting with the establishment of genuine partnerships with leading actors in this domain.

Bibliography List :

- 1) Brundage, Miles, et al. The Malicious Use of Artificial Intelligence: Forecasting, Prevention, and Mitigation. 2018. <https://arxiv.org/pdf/1802.07228> Accessed: mai 10, 2025.
- 2) Bughin, Jacques, et al. Notes from the AI Frontier: Modeling the Impact of AI on the World Economy. McKinsey Global Institute, 2018, www.mckinsey.com/featured-insights/artificial-intelligence/notes-from-the-ai-frontier-modeling-the-impact-of-ai-on-the-world-economy. Accessed 12 Aug. 2025.
- 3) <https://ai.gov.ae/ar/> Accessed 12 Aug. 2025.



- 4) <https://aisingapore.org/> Accessed 12 Aug. 2025.
- 5) <https://eur-lex.europa.eu/eli/reg/2024/1689/oj/eng> Accessed: June 12, 2025.
- 6) <https://hcn.dz/SNTN-Ar.pdf> Accessed: June 12, 2025.
- 7) Topol, Eric. Deep Medicine: How Artificial Intelligence Can Make Healthcare Human Again. Basic Books, 2019.

Annex

Draft Law No. (.../2025) on the Establishment and Regulation of the Artificial Intelligence Authority

Title I: General Provisions

Article 1:

A national authority, hereinafter referred to as the “National Artificial Intelligence Authority,” is hereby established under this Law. The Authority shall enjoy legal personality as well as financial and administrative autonomy, and shall be placed under the supervision of the Presidency of the Republic.

Article 2:

The Authority shall aim to regulate, develop, and oversee all activities related to the use of artificial intelligence technologies at the national level, in a manner that ensures the protection of national security, respect for ethical values, and the safe and sustainable use of such technologies.

Article 3:

The Authority shall work to strike a balance between encouraging innovation in the field of artificial intelligence and protecting individual rights, including intellectual property, the right to privacy, and the protection of personal data.

Article 4:

This Law shall apply to all natural and legal persons, whether national or foreign, who engage in activities related to artificial intelligence within the territory of the State or whose activities affect its interests.

Title II: Organization and Management of the Authority

Article 5:

The Authority shall be composed of:

1. A Board of Directors composed of technical and legal experts.
2. A Director General.
3. Specialized technical and advisory committees drawn from ministries, the private sector, and active research institutions.

Article 6:

The Director General shall be appointed by presidential decree for a renewable five-year term, and shall be responsible for managing the Authority and implementing the decisions of the Board of Directors.

Article 7:

The Board of Directors shall be composed of:

- Representatives of the concerned ministries (Higher Education, Health, Defense, Economy, Justice, Interior, Trade, Industry).
- National experts in artificial intelligence.
- Representatives of the private sector and civil society.

Article 8:

The Board of Directors shall meet at least twice a year, and shall be responsible for setting general policy, approving annual plans, and adopting binding regulatory instruments.

Title III: Administrative Departments

Article 9:

The Authority shall comprise the following main directorates:

- Directorate of Research and Development.
- Directorate of Cybersecurity and Oversight.
- Directorate of Health and Medical Artificial Intelligence.
- Directorate of Economy and Digital Transformation.
- Directorate of Education, Training, and Foresight.
- Directorate of Legal Affairs and Rights Protection.



Article 10:

The Authority may establish or cooperate with specialized research centers and business incubators for start-up projects in the field of artificial intelligence, as well as with all active institutions in this field from both the public and private sectors.

Title IV: Areas of Application

Article 11:

The Authority's areas of intervention shall include:

1. **Security:** Developing AI systems to strengthen national security, combat cybercrime, and monitor technological risks.
2. **Health:** Supporting and promoting AI solutions in medical diagnosis, disease mapping and classification, and hospital management improvement.
3. **Education:** Integrating AI technologies into curricula, developing smart educational tools, and monitoring academic performance.
4. **Economy:** Promoting industrial innovation, supporting digital transformation of enterprises, conducting strategic economic data analysis, and setting safe future outlooks.

Article 12:

All actors operating in these areas shall be required to obtain prior authorization from the Authority before deploying any AI system on a commercial or institutional scale.

Title V: Penalties

Article 13:

Any person who operates or develops an AI system without authorization from the Authority shall be punished by a fine ranging from 1,000,000 DZD to 5,000,000 DZD.

Any person who causes the leakage of personal data of users or shares sensitive information with foreign entities shall be punished by imprisonment or a fine ranging from 1,000,000 DZD to 5,000,000 DZD.

Article 14:

Where an AI system causes harm to persons or property as a result of

negligence or misuse, the perpetrator shall be punished by imprisonment from two to five years, in addition to civil compensation.

Article 15:

Penalties shall be doubled if the violation is committed in the fields of national security or public health.

Title VI: Transitional and Final Provisions**Article 16:**

Institutions and individuals active in the field of artificial intelligence shall be granted a period of twelve (12) months from the date of publication of this Law to regularize their situation in accordance with its provisions.

Article 17:

The Authority shall issue the necessary regulatory instruments for the implementation of this Law within six (6) months from the date of its establishment.

Article 18:

This Law shall be published in the Official Gazette and shall enter into force thirty (30) days following its publication.