

## The High Commission for Digitalization in Algeria

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### Abstract:

Digitalization has become an unavoidable necessity due to its significant advantages, particularly in saving time and effort and providing greater administrative convenience. This shift allows citizens to access modern, fast services for obtaining administrative documents electronically, moving away from traditional paper-based methods. Additionally, it contributes to increased transparency in operations and the reduction of bureaucracy that affects most sectors, especially service-based ones. To achieve this, a High Commission for Digitalization was established to oversee and implement the national digitalization strategy. This body is responsible for designing and monitoring the national digitalization strategy in collaboration with relevant sectors, institutions, the economic sector, civil society, and all related entities and organizations. It also cooperates with international specialized institutions, particularly those in countries that are pioneering models in digitalization. The transfer of experiences and the leveraging of expertise and knowledge are crucial for creating an effective and high-quality digital system.

**Keywords:** Digitization, High Commission, Strategy, Administrative Efficiency.

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### Introduction

Algeria is currently undergoing a continuous digital transformation, with the Algerian government seeking to fully harness the opportunities presented by technological advancements. This transformation spans various sectors, including e-government, digital education, and e-health. The aim of digital transformation is to improve the quality of services, enhance efficiency, and shift towards a society that fully benefits from technology and digitization.

Digitization holds particular importance for Algeria, viewed by the highest authorities as an independent program and a pillar of ethical governance and public life, as well as a means to promote good governance. Discussions on regulation and oversight are futile without a foundational shift towards digital transformation, which is also essential for strengthening efforts to combat corruption, favouritism, and nepotism.

The implementation of mechanisms for integrity, seriousness, accuracy, objectivity, and transparency in the management of public affairs and finances cannot be solidified without comprehensive digitization. The effectiveness of decision-making

is reinforced by moral principles, but digitalization plays a significant role in achieving desired outcomes.

To realize this, Algeria has adopted a proactive approach to accelerate the digitization of all sectors and advance digital activities. The country's highest authorities place significant emphasis on digital transformation, aligning with the commitments of the President of the Republic, who has placed the digitization project at the core of the national strategy for achieving sustainable local development. This national digitization policy targets all sectors and entities, including public administration, education, health, agriculture, and industry.

Modern information and communication technologies have brought significant changes to public life, influencing both individuals' expectations for more advanced services and the institutions that provide these services. The integration of information technology across government operations has become a goal for many countries, including Algeria, which aims for progress and advancement. Consequently, the adoption of information technology is closely linked to digitization efforts within public administrations.

Thus, attention to digitization and electronic administration in Algeria has become one of the government's key objectives, driving various efforts to keep pace with modern times and achieve success across different sectors.

In this context, modernizing local administration and implementing digitization projects have become priorities for the Algerian government, particularly given the current circumstances in the country. Decisions aimed at rationalizing public expenditures, curbing waste, and boosting the economy are crucial. Public services provided by local authorities have been an essential function of the state since its inception. The inefficiencies of traditional methods and their numerous shortcomings have led to the consideration of digitizing local administrations to increase transparency, reduce bureaucracy, and combat corruption within the administration, ultimately improving public services.

Despite the adoption of a policy in 2000 to develop the telecommunications sector and create an institutional legal framework conducive to competition and access to various communication services, Algeria did not initially have a clear strategy to establish a suitable digital environment for comprehensive digital transformation. This changed in 2008 with the formulation of a strategy called "e-Algeria," initiated by the Ministry of Post and Information and Communication Technologies. This project, launched between 2008 and 2013, involved consultation with public institutions, economic operators, universities, research centres, and professional associations active in information and communication sciences and technologies.

In 2020, like other countries worldwide, Algeria faced the COVID-19 pandemic, which affected various aspects of life, including local administration and the continuity

of public services. This highlighted an urgent need for digitization. On May 3, 2020, during a video conference meeting reported by the Presidency of the Republic and media outlets, the necessity to extend digitization across all sectors was emphasized to eliminate approximate statistics and build a robust economy.

In line with this policy, a presidential decree (No. 20-163, dated June 23, 2020) was issued, establishing the Ministry of Digitization and Statistics. This marked significant steps towards administrative digitization, as demonstrated by new digital services activated through the Algerian Post portal via the "gold card," and the Ministry of Interior's portal offering a range of digital services.

The latest issue of the Official Gazette (No. 59) published the presidential decree establishing the High Commission for Digitalization, tasked with overseeing the national digitalization strategy. This move aligns with the top authorities' continuous emphasis on the need for comprehensive digitization across all sectors and administrations.

The importance of this topic lies in highlighting Algeria's efforts to digitize all ministerial sectors through the establishment of the aforementioned commission. This body aims to mitigate delays and interruptions that certain sectors face in their journey towards digitization and to drive progress in digital transformation. Despite the state's strategy of making digital activity a central challenge for achieving development goals across various fields, this commission will play an active role in meticulously tracking the digitization project, adhering to defined deadlines to overcome existing delays. It will also address various aspects related to public policies on modernization and digitization and ensure cybersecurity by securing information, data, and updating programs and systems to counter cyberattacks. This commission will have numerous key roles, including serving as an authoritative body with experts in diverse fields such as communications, databases, programming, computing, and artificial intelligence. These experts will develop the strategic plan and act as a reference for directorates responsible for digitization in all sectors. The commission also holds legal authority to mandate a roadmap that all ministerial sectors and entities must follow.

Additionally, it is tasked with formulating and defining the national strategy and policies for digitization, with a group of experts reporting directly to the President of the Republic, updating him on all details related to the pace of the digitization project in each sector and rigorously implementing his directives to achieve the goal of widespread digitization, while clearly defining roles to avoid conflicts with other ministries' authorities.

Our research aims to highlight the significance of the High Commission for Digitalization in Algeria, which reflects the country's commitment to digital transformation, infrastructure development, and digital services enhancement. It explores the commission's role in achieving digital integration, increasing citizens'

access to digital technology and the internet, fostering innovation and digital entrepreneurship, and strengthening digital government services.

This research employs a descriptive method to outline the theoretical and conceptual framework of key digitization elements and an analytical approach to examine the legal texts and content enacted by Algerian legislators, which define the functions, organization, and operation of the High Commission for Digitalization.

The research question centres on the importance and role of the High Commission for Digitalization. To answer this, we will explore the conceptual framework of digitization (first chapter) and the role of the High Commission in promoting digital transformation in Algeria (second chapter).

### **Chapter One: The Conceptual Framework of Digitization**

Digitization is a modern phenomenon that has permeated various areas of life, including commercial, scientific, and cultural fields. The rapid development of computing and modern technologies has increased human reliance on them for daily tasks. In this chapter, we will define the concept of digitization, explore its forms, the benefits it brings, examples, key characteristics, elements, and motivations, and ultimately highlight its importance.

## **Section One: Defining Digitization – Linguistically and Technically**

The contemporary Arabic literature has popularized terms such as “digital writing,” “digital creativity,” “electronic books,” and “digitization,” among others. These terms refer to a new mode of writing that emerged because of significant advancements in information and communication technology.

### **Linguistic Definition of Digitization:**

In Arabic linguistic dictionaries, the word “raqam” (digit) conveys various meanings, including notation, clarification, writing, pen, and script. Ibn Manzur explains: “Al-Raqm and Al-Tarqim mean marking or clarifying a book; raqm al-kitab means to annotate or clarify it with points and markings.” The phrase “kitab marqum” (a written book) implies that its letters have been marked with diacritical points. The term “raqm” is associated with writing and sealing, and raqm also refers to a patterned decoration. For example, “raqama al-thawb” means marking a cloth with patterns.

### **Technical Definition of Digitization:**

Said Yaktine defines analog digitization as the process of converting any type of document (e.g., paper) into a digital format. This conversion allows text, static or moving images, audio, or files to be encoded into numbers, enabling them to be accessed and used by information technology systems. This means converting written, printed, or drawn texts from their paper form to a digital format that can be viewed on computer screens.<sup>1</sup>

Charlotte Percy describes digitization as a methodology that enables the transfer of data and information from an analog system to a digital one. Doug Hodges, in a concept adopted by the National Library of Canada, considers digitization to be the process or action of converting intellectual content stored on traditional physical media (e.g., journal articles, books, manuscripts, maps) into a digital format for electronic processing.<sup>2</sup>

In summary, digitization involves not only acquiring a collection of electronic texts and managing them but also fundamentally converting available information from paper or traditional storage media into electronic form. Consequently, the traditional text becomes a digitized text that can be accessed using computer technologies.

## **Section Two: Characteristics and Forms of Digitization**

### **Characteristics of Digitization:**

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<sup>1</sup> Ahmed Al-Kubaisi, *The Evolution of Automated Systems in Libraries from Computing to Virtual Digitization*, *Al-Arabia Journal* 300, Issue 29, 2008, pp. 6–7.

<sup>2</sup> Said Yaktine, *From Text to Hypertext: An Introduction to the Aesthetics of Interactive Creativity*, Beirut, Arab Cultural Centre, 1st edition, 2005, p. 2.

Digitization stands out from other technologies due to the following characteristics:

- **Time reduction:** Technology makes all locations electronically adjacent.
- **Space reduction:** Storage media can hold vast amounts of information that is easily accessible.
- **Sharing intellectual tasks with machines:** Interaction between researchers and artificial intelligence systems leads to knowledge development and enhances user-training opportunities for comprehensive production control.
- **Communication network formation:** Technology-based equipment forms networks, increasing information flow between users, manufacturers, and other activity sectors.
- **Interactivity:** Users can both send and receive information, allowing roles to be exchanged and creating interaction among activities.
- **Asynchronicity:** Users can receive messages at their convenience, without being required to use the system simultaneously.
- **Decentralization:** Information and communication technology (e.g., the internet) can operate continuously without being controlled by any single entity.
- **Connectivity:** Devices from various manufacturers can connect and communicate regardless of their origin.
- **Mobility:** Users can access services from anywhere using various devices like laptops or mobile phones.
- **Transferability:** Information can be transferred from one medium to another (e.g., converting audio messages to printed text).<sup>1</sup>
- **Non-Mass Communication:** This refers to the ability to direct a communication message to an individual or a specific group rather than necessarily addressing large audiences. This characteristic allows for control over the message, ensuring it reaches the consumer directly from the producer.
- **Ubiquity and Spread:** This describes the network's ability to expand and cover increasingly vast and unlimited areas around the world, drawing its strength from the systematic and flexible spread of its pattern.
- **Global Reach:** This pertains to the environment in which this technology operates, where information takes different, complex routes to spread across various regions of the world. It facilitates the electronic flow of capital.<sup>2</sup>

### Forms of Digitization:

Digitization takes various forms:

1. **Image-Based Digitization:** This form is extensively used for storing books and old manuscripts, especially when studying non-textual artistic values. It involves:

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<sup>1</sup> Ahmed Mashhour, Information Technology and Its Impact on Economic Development, *3rd Arab Conference on Industrial Information and Networks*, Arab Organization for Education, Culture, and Science, 2003, p. 7.

<sup>2</sup> Ahmed Mashhour, *ibid.*, p. 7.

- **Single-byte black-and-white images:** Represented by a byte with two values (black and white). This is economical and suitable for modern documents but poses challenges for older documents affected by moisture or damage.
  - **Eight-byte grayscale images:** Require more memory space and are used for valuable documents.<sup>1</sup>
  - **24-byte or higher colour images:** Require substantial memory, with each pixel corresponding to three primary colours (red, green, blue) encoded by a specific number of bytes.
2. **Text-Based Digitization:** Enables direct searching within electronic documents through optical character recognition (OCR) software. It converts scanned text images into symbols and characters that can be edited and corrected.
3. **Vector-Based Digitization:** Utilized for graphical representations and involves complex mathematical calculations, particularly in computer-generated diagrams. The conversion from paper to vector format is a long and costly process. PDF files are an example, designed for electronic document sharing, offering the following benefits:
- Accuracy: PDF files maintain their format and are not alterable by the reader.
  - Size: Compressed PDF files facilitate rapid online transfer.
  - Compatibility: PDF files are readable on any operating system.
  - Quality: PDFs preserve high-quality text and images, allowing zooming without distortion.<sup>2</sup>

### Section Three: Benefits and Components of Digitization

#### Benefits of Digitization:

Digitization offers numerous benefits aimed at enhancing performance and the quality of services for the public, users, public and private institutions, and companies. These benefits include:

- **Economic Benefits:** Saving money, time, and effort for all parties involved in electronic transactions and significantly reducing financial costs. Supporting economic development programs by facilitating transactions between the public and private sectors, which in turn increases profitability.<sup>3</sup> Creating new job opportunities in emerging fields such as data entry, infrastructure operation and maintenance, and information security. Consolidating efforts under a single electronic portal, avoiding the duplication of procedures typical of traditional government systems. Opening new investment channels through the integration of

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<sup>1</sup> Souhaila Mehri, *The Digital Library in Algeria: A Study of Reality and Future Prospects*, Master's Thesis, Faculty of Humanities and Social Sciences, University of Constantine, 2005, pp. 83–84.

<sup>2</sup> Souhaila Mehri, *ibid.*, p. 84.

<sup>3</sup> Maryam Khalis Hussein, *E-Government*, Baghdad College of Economic Sciences Journal, Ministry of Finance, Iraq, 2013, p. 446.

e-government and e-commerce by using shared applications, technologies, and internal data exchanges.

- **Administrative Benefits:** Organizing production processes and enhancing job performance. Eliminating bureaucracy and routine in traditional government systems. Promoting transparency in transactions and eliminating favouritism and undue influence. Streamlining administrative processes by simplifying hierarchical structures and expediting procedures. Establishing new general guidelines and a work environment that is significantly different from traditional government frameworks. Adopting a new administrative concept that encourages teamwork and consolidates efforts.
- **Social Benefits:** Creating an information society capable of handling technical data and keeping pace with the information age. Facilitating and accelerating social communication through various electronic applications, such as email. Activating social activities via numerous electronic applications.<sup>1</sup>

### Components of Digitization:

- **Digital Coding:** Refers to the binary foundation in mathematics, used to capture information in various forms (text, images, audio) and place it online so that a computer can process it into models as directed by the user. This information can then be outputted with new meanings. This technical service has advanced to include the digital transmission of information and its automatic processing.
- **Digital Transmission Systems:** These include laser transmission systems and the production of optical mechanisms and pumps that facilitate the use of new optical transmission systems. Such systems are implemented in access networks due to their high intelligence, which allows for optimal control, maintenance, and operation, along with a high level of security.
- **Digital Access Networks:** These networks rely on cables, including devices like DSL, which use coding techniques for high-quality television systems and MODEMs for signal conversion.
- **Switching Systems:** Depend on high-quality monitoring mechanisms to ensure alignment between transmitted and received information, benefiting from rapid data transfer.
- **Mobile Phone Networks:** Known as third-generation networks, prevalent in the 21st century, which use single coding processes for each call and have high speeds up to 2 Mbps.
- **Broadcasting Technologies:** The result of recent developments combining the internet with cable television networks, enabling interactive digital broadcasting such as transmitting and recording televised programs and video services.<sup>2</sup>

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<sup>1</sup>Maryam Khalis Hussein, *ibid.*, p. 446.

<sup>2</sup> Abeer Al-Rahbani, *Digital (Electronic) Media*, Jordan, Osama Publishing and Distribution House, 1st edition, 2012, p. 52.

## Section Four: Models of Digitization

- **Technical Model:** Converts traditional organizations into digital ones using operations research, computer science, and management science, without focusing on the behavioural aspects, which may lead to resistance and rejection of digital decision-making applications.
- **Behavioural Model:** Focuses on individual, group, organizational, and environmental behavioural changes during the digitization of an organization.
- **Techno-Social Model:** Considers the level of technical and organizational interaction during the transformation, focusing on business strategies and necessary software to activate computers, databases, and communications.
- **Information Sharing Model:** Involves the organization's participation in local or international information networks or relying on an information company for shared service provision.
- **Competitive Forces Analysis Model:** Builds integrated information systems to support SWOT analysis and strategic planning, aiming to maximize organizational strengths, reduce weaknesses, seize opportunities, and address global and local challenges.
- **Digital Asset Management Model:** Relies on multiple information and communication companies rather than a single entity to manage digital files.
- **Gradual Transformation Model:** Based on an organization's financial capacity to shift from paper-based to digital models without relying on detailed feasibility studies or prior digital needs assessments, facing issues like hardware obsolescence and software updates.<sup>1</sup>
- **Strategic Transformation Model:** Focuses on strategic planning with information and communication technology as a pillar of the organization's competitive edge, determining its position in local and global industries and acknowledging that competition through time management is key to achieving objectives.
- **Dynamic Transformation Model:** Ensures effective use of an organization's relationship with environmental changes and continuous technological progress, prioritizing interaction and coordination between organizational needs, environmental influences, and technological advancements.
- **Organizational Development Model:** Advocates for an organic shift within organizations towards digital transformation through learning and transitional training, as opposed to rigid solutions that reduce success potential.
- **Ideal Model:** Seeks optimal solutions for implementing ICT to convert an organization into a digital entity, using a simulated test phase to assess practical application acceptance while managing costs and achieving top results, such as resource allocation and software enhancement.

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<sup>1</sup> Farid Al-Najjar, *The Role of Information Technology in the Transition to Digital Organizations*, Egypt, Arab Administrative Development Organization, 2004, pp. 199–200.

- **Cost-Benefit Model:** Compares the costs of transforming an organization digitally with expected gains from adopting information systems, with transformation being rejected if costs are too high.
- **Comprehensive Transformation Model:** Involves an integrated approach where all departments transition digitally, managed by a technology administration that aligns business changes with electronic management updates, including hardware, software, networks, databases, and internet systems.
- **Leased Transformation Model:** Some organizations choose to lease computers, software, and system analysis for their information and communication systems, leveraging the expertise of specialized IT companies.
- **Participation Model:** Highlights the importance of ICT networking for utilizing the internet to support decision-making and policies, measuring companies' competitive positions, and updating communication and information systems based on market trends.<sup>1</sup>

Integrating digitization as a modern technique to improve administrative services represents a strategy that can yield positive results. This aligns with the genuine advancement of digitization as a modern necessity and the role of administrative services as essential tasks within organizations amid rapid changes, forming an interactive relationship between digitization and administrative services to reach a unified conceptual understanding. The success of digitization projects depends on their actual implementation for improving digital services.

## **Section Five: Importance and Drivers of Digitization**

### **1. Importance of Digitization:**

Digitization is one of the most significant modern concepts that has garnered attention across various fields and sectors. It revolves around converting paper-based and traditional processes into digital formats, employing modern technologies and tools such as computing and artificial intelligence. Focusing on digitization has become essential in today's world, as it enhances efficiency, improves customer experience, reduces costs, and contributes to the digital transformation of organizations and businesses. This section aims to highlight the importance of digitization in different domains, examine related challenges and strategies, and explain its impact on the job market, along with some tips for success in the digital era.

Digitization offers numerous benefits for improving performance and the quality of services provided to the public, clients, public and private institutions, and companies, including:<sup>2</sup>

#### **– Economic Importance:**

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<sup>1</sup> Farid Al-Najjar, *ibid.* p. 200.

<sup>2</sup> Maryam Khalis Hussein, *E-Government*, Baghdad College of Economic Sciences Journal, 2013, Issue 04, Iraq, p. 446.  
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- Saving money, time, and effort for all parties involved in electronic transactions, and significantly, reducing financial expenses associated with traditional government operations.
- Supporting economic development programs by facilitating interactions between the public and private sectors, thereby increasing profitability.
- Creating new job opportunities in emerging fields such as data entry, infrastructure operation and maintenance, and information security.
- Streamlining efforts under a unified electronic portal to prevent duplication of tasks and redundant procedures common in traditional administration.
- -Opening new investment channels through the integration of e-governance and e-commerce by using shared applications, technologies, and internal data exchanges.
- **Administrative Importance:**
- Organizing production processes and improving job performance.
- Eliminating bureaucracy and routine practices found in traditional administration.
- Ensuring transparency in transactions and removing favouritism and undue influence.
- Simplifying the lengthy hierarchical structures typical of traditional administration and speeding up administrative processes.
- Establishing new rules and a work environment vastly different from traditional administration, adopting a new administrative concept that promotes teamwork and unified efforts for better citizen service.

## 2. Drivers of Digitization:

The wave of change in how information is delivered has driven many governments to transition toward digital administration. This shift is influenced by several developments, including government officials developing new methods to improve public administration, enhancing service delivery efficiency, and responding to pressure from citizens, businesses, or other stakeholders involved in government work. Each country has its specific motivations for adopting digital administration, which vary depending on its economic and political conditions. Key drivers include:<sup>1</sup>

**Rapid Technological Advancement and the Associated Knowledge Revolution:** Leveraging modern technology benefits society by improving institutional performance and enabling investments in the technology sector, thereby facilitating life and maximizing the advantages of international technological offerings.

**Globalization Trends to Strengthen Human Connections:** The motivation for many countries to enhance their services to meet high standards, achieve international quality certifications, and satisfy citizens, who now global benchmarks for comparing local services with those have provided by advanced countries.

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<sup>1</sup> Ammar Bouhouch, *Modern Management Theories in the 21st Century*, Beirut, Dar Al-Gharb Al-Islami, 2006, p. 182.

**Democratic Transitions:** Accompanied by necessary administrative reforms for countries aspiring to join the World Trade Organization or meet the demands of local and international human rights organizations. Global changes have compelled nations to engage with these trends; those unable to keep up face potential isolation, which could harm the country and its citizens.

**Government Employees' Need for Quality Support:** This includes a solid information base and an advanced, modern work system. Public pressure on political leadership often demands more open and transparent communication channels that allow citizens to express their opinions on important issues and engage in public discussions.

**Efficiency in Public Service Delivery:** Efficiency includes error reduction, income improvement, cost reduction, and bureaucracy minimization through process re-engineering. This leads to shorter times for achieving objectives and provides employees with opportunities to develop new skills.

**Marketing:** Involves identifying the best ways to interact with citizens and the private sector, fostering a sense of importance among citizens by emphasizing the government's focus on their well-being and recognizing their rights and responsibilities.

**Providing New and Advanced Services:** Enhancing service delivery is a primary motivator for digital administration, aimed at improving citizens' experiences when submitting requests or accessing services. These improvements can be achieved through processes that are more efficient and the application of technology to enhance service quality.

**Decentralization:** A goal for countries with large geographic areas and uniform citizen characteristics. However, e-governance can struggle to impact long-established bureaucratic organizations.<sup>1</sup>

**Administrative Control:** The technology used in digital administration projects facilitates continuous, direct oversight, predicts disruptions, tracks citizen transactions, reduces bureaucracy, and prevents government monopolies, leading to faster economic development and greater stability.

**Citizen Demand:** Especially among younger generations accustomed to modern technology, which has become an essential part of daily life.

**Increasing Citizen Participation:** Advocates for digital administration emphasize greater citizen involvement in government decision-making processes. This enhances their sense of participation and allows for interactive dialogues that provide opportunities for like-minded individuals to connect.

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<sup>1</sup> Murru, Maria Elena, E- government: from real to virtual. Brussels, 11 April 2003, p 25.

**Transparency:** Supporting transparency is tied to reducing governmental corruption, simplifying procedures, promoting democracy, decreasing pessimism among citizens, and boosting foreign aid to countries. Digital administration helps curb bribery, increases political transparency, and builds public trust.

**Economic Development:** Directly related to transparency, countries aiming for economic growth have strong motivations for digital administration, especially when seeking to attract foreign investment and improve their image to investors. E-governance enhances the infrastructure for service delivery, reflecting a commitment to the changes needed to participate in the knowledge economy.

## **Chapter Two: The Role of the High Commission for Digitalization in Enhancing Digital Transformation in Algeria**

The High Commission for Digitalization plays a crucial role in promoting digital transformation in Algeria. It leads and guides this process, providing directives and guidelines to government bodies and the private sector. Additionally, the commission encourages the implementation of necessary policies and procedures for digitization at the national level and ensures the availability of suitable human and technological resources to achieve digital transformation in Algeria.

The commission also coordinates and oversees the implementation of digital policies and procedures, ensuring compliance with legal and security standards. In doing so, the High Commission contributes to the integration and balance of the digital transformation process, guaranteeing its success.

Established under Presidential Decree No. 23-314, which details the creation, tasks, organization, and operations of the High Commission for Digitalization, the body is tasked with designing the national digitalization strategy in consultation with relevant sectors, institutions, the economic sector, and civil society.

To understand the mission of the High Commission for Digitalization, we will define its concept and functions, its organization and operations, its importance, the challenges it faces, and the national digitalization strategy.

### **Section One: Concept and Functions of the High Commission for Digitalization**

Digitization has become an essential component for advancing economic development and enhancing the well-being of individuals in modern societies. It increases productivity by improving production processes and services, thereby reducing costs and boosting economic efficiency. Moreover, digitization broadens access to essential services such as financial services, education, and healthcare, improving the quality of life. It fosters innovation and the development of new solutions, thereby supporting business growth and increasing employment opportunities. Digitization also enhances transparency in governmental and business operations, reducing corruption and building trust between institutions and citizens. Additionally,

it creates new job opportunities in the technology sector and encourages entrepreneurship among youth, contributing to economic development and better employment prospects.<sup>1</sup> These factors expedited the issuance of the presidential decree on September 6, 2023, which established the High Commission for Digitalization and outlined its tasks, organization, and functioning.

**Definition:** Article 2 of the decree states that the High Commission for Digitalization is a public institution with a special status, enjoying legal personality and financial autonomy. It operates under the supervision of the Presidency of the Republic and is headquartered in Algiers.<sup>2</sup>

**Functions:** The High Commission for Digitalization is responsible for designing the national digitalization strategy, in consultation with relevant sectors, institutions, the economic sector, and civil society. Specifically, it is tasked with:<sup>3</sup>

Ensuring the follow-up and implementation of the national digitalization strategy and performing the following functions:

Monitoring the alignment of sectoral plans with the national digitalization strategy. Assessing the achievements of each sector and proposing necessary corrections based on digitalization performance indicators.

Ensuring that the national digitalization strategy aligns with information system security requirements, in coordination with specialized bodies. Identifying priority projects, strategic investments, and methods for mobilizing human resources and financing tools, as well as suggesting legal and regulatory measures and technical solutions to ensure continuous effectiveness and improvement in digital transformation efforts.

Proposing measures to strengthen digital sovereignty and develop national products and initiatives that promote human resource development and the necessary national skills in digitization. Conducting and supporting prospective studies on the development of digitization and ensuring technological vigilance, as well as proposing research projects within its field of expertise.

In the field of international cooperation, the High Commission for Digitalization collaborates with equivalent international institutions and organizations in the domain of digitization, in accordance with applicable laws and regulations. It also contributes to updating the registry of activities related to digitization.

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<sup>1</sup> <https://fb.watch/t84OD5Kd6J>, consulté le 15 juillet 2024

<sup>2</sup> (2) Article 02 of the Presidential Decree dated September 6, 2023, establishing the High Commission for Digitalization and defining its tasks, organization, and operation, Official Gazette No. 59, September 10, 2023, accessed July 6, 2024.

<sup>3</sup> Article 04, *ibid.*

The High Commission for Digitalization is qualified to carry out the following:<sup>1</sup>

**Leading Strategic Inter-Sectoral Projects:** The commission leads strategic projects across different sectors, as well as initiatives launched based on directives from the President of the Republic. It also reviews sectoral programs related to digitization and evaluates their implementation methods.

**Ensuring Alignment with the National Strategy:** The commission ensures that the plans of relevant sectors align with the national digitalization strategy. It evaluates the achievements of each sector and proposes necessary corrections based on digitalization performance indicators. Additionally, it ensures that the national strategy meets the security requirements of information systems in coordination with specialized bodies.

**Identifying Priority Projects and Strategic Investments:** The commission identifies priority projects and strategic investments, and outlines methods for mobilizing human resources and financing tools. It also suggests regulatory and legal instruments and any technical solutions to ensure the effectiveness and continuous improvement of digital transformation efforts.

**Proposing Measures for Digital Sovereignty:** The commission recommends measures that enhance digital sovereignty and promote the development of national products. It is also responsible for leading strategic joint projects between sectors and evaluating sectoral digitization programs initiated based on high-level directives.

## **Section Two: Organization and Operation of the High Commission for Digitalization**

According to the aforementioned decree, which also defines the organization and operation of this body, the High Commission for Digitalization is managed by a High Commissioner. The commission is supported by a Steering Council and a Scientific and Technical Committee. According to the presidential decree, the Steering Council is chaired by the Chief of Staff of the Presidency of the Republic and includes in its membership the ministers responsible for the interior and local communities, justice, finance, higher education and scientific research, telecommunications, digitization, the minister in charge of the knowledge economy and start-ups, the Secretary-General of the Ministry of National Defence, as well as the High Commissioner.<sup>2</sup> The council can invite any government member relevant to the issues on the agenda and consult with anybody or individual that might aid its work. The Steering Council deliberates on:<sup>3</sup>

- Elements of the national digitalization strategy before presenting them to the President of the Republic for approval.

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<sup>1</sup> Article 05, *ibid.*

<sup>2</sup> Article 06, *ibid.*

<sup>3</sup> Article 07, *ibid.*

- Strategic or priority projects related to digitization.
- The evaluation of outcomes of the tasks monitored by the High Commission.
- Measures and resources required for implementing the national digitalization strategy, and the internal structure and regulations of the High Commission.

The council also reviews the budget proposal, wage system for High Commission staff, contracts, and international partnership agreements within its jurisdiction. Additionally, the council examines and recommends measures to enhance and organize the High Commission.<sup>1</sup>

The Steering Council meets at least once every six months at the invitation of its chair and can hold extraordinary sessions at the request of the chair or the High Commissioner. The council approves its internal regulations at its first meeting, and the secretariat of the council is provided by the High Commission.<sup>2</sup>

High Commissioner: <sup>3</sup>The High Commission for Digitalization is managed by a High Commissioner appointed by presidential decree, with their mandate subject to termination by the same means. The High Commissioner is responsible for the overall operation of the commission, managing it by preparing activity programs and representing the commission legally and in civil matters. The High Commissioner also holds administrative authority over all commission employees.

The High Commissioner appoints to positions where no other appointment method is specified, prepares the budget proposal and oversees its execution, authorizes expenditure, drafts the internal regulations of the commission, ensures their implementation, and signs contracts and cooperation agreements according to current legislation. Additionally, the High Commissioner submits all relevant issues to the Scientific and Technical Committee and prepares an annual activity report for the commission.

The High Commissioner proposes the internal organization of the High Commission and suggests the salary system for its employees. The High Commissioner attends the meetings of the Steering Council and oversees the implementation of its deliberations. The High Commissioner submits quarterly reports and an annual report on the activities of the High Commission to the President of the Republic, including recommendations and suggestions.<sup>4</sup>

Scientific and Technical Committee: This committee consists of 15 members, including the chairperson, who is a scientific figure selected for their expertise in digitization and elected from among the members during the first meeting. The list of

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<sup>1</sup> Article 08, *ibid*

<sup>2</sup> Articles 9. , *ibid*

<sup>3</sup> Article 10, and 11, *ibid*.

<sup>4</sup>Articles 13. , *ibid*.

committee members is proposed by the High Commissioner in consultation with relevant parties and approved by the Steering Council.

### **Section Three: Importance of the High Commission for Digitalization**

The High Commission for Digitalization is vital to Algeria due to its critical role in developing the national economy and enhancing government and private sector services. It effectively contributes to improving work efficiency, reducing costs, simplifying administrative procedures, and facilitating quick and effective access to information. Furthermore, the commission enhances transparency and combats corruption by improving data quality and promoting the use of technology in government operations, leading to advanced public service access and sustainable development.

With this progressive digital approach, knowledge becomes more readily accessible, fostering trust and transparency in all sectors. The High Commission also drives innovation and stimulates economic growth by supporting technological and digital initiatives, creating a conducive environment for investment and technological development. Understanding the importance of the High Commission and effectively implementing its strategies is essential for ensuring sustainable development and prosperity.

Additionally, the commission plays a significant role in data protection and improving digital infrastructure to keep pace with ongoing technological changes and maximize the benefits of digitization. It enhances competitiveness and improves the quality of life for citizens. Moreover, the High Commission's role includes fostering education and developing digital skills to ensure that individuals can use technology efficiently, protecting personal data and privacy in the digital age, and establishing a strong legislative and policy framework to balance innovation with security.

The commission's work supports sustainable growth, creates new job opportunities, and improves service quality. By enhancing its role, the High Commission for Digitalization ensures the full potential of digital transformation is realized, promoting national economic development and enhancing services in both the public and private sectors. It is crucial for improving operational efficiency, cutting costs, streamlining administrative processes, and providing rapid and effective access to information.

In conclusion, by reinforcing transparency and fighting corruption through improved data quality and digital operations, the commission supports comprehensive and sustainable growth. This digital advancement fosters easy knowledge access and boosts trust and transparency across all areas. By leveraging the High Commission's work, innovation is promoted, and economic growth is encouraged, creating a favourable environment for investment and technological progress.

## **Section Four: Challenges Faced by the High Commission for Digitalization**

As Algeria enters the digital era with full force, the High Commission for Digitalization encounters both challenges and new opportunities in the field of technology and communications. Notable challenges include modernizing the information and communications technology (ICT) infrastructure, enhancing internet usage across all aspects of daily life, and addressing various obstacles such as outdated infrastructure and a lack of technical training. However, alongside these challenges come significant opportunities for progress and economic growth. One of the key challenges for Algeria in its digital journey is providing fast and reliable internet services to its citizens. The internet has become an essential part of modern life, with many industries and services dependent on robust internet connectivity for growth and prosperity. Additionally, Algeria needs substantial investments in developing technical skills among youth and creating an environment conducive to technological entrepreneurship. Job creation in the fields of technology and innovation is crucial for reducing unemployment and fostering economic development.

Digitization also offers a chance to enhance transparency and efficiency in government and private sectors. By employing technology in administration and public services, service quality and efficiency can be improved, leading to better services for citizens. Achieving successful digitization requires cooperative efforts between the public and private sectors, leveraging international expertise, and knowledge exchange. Overcoming these challenges can enable Algeria to harness the benefits of digitization to foster economic development and realize a prosperous future for all.<sup>1</sup>

### **Information Security and Data Protection:**

The High Commission for Digitalization faces the challenge of ensuring information security and protecting personal data, as cyber threats and digital breaches increase in the modern era. These threats can result in the loss of privacy, data integrity, fraud, manipulation, and deliberate network damage. Strong strategies must be developed to counter these threats and promote cybersecurity awareness among citizens. Moreover, this effort requires updating laws and regulations to keep pace with rapid technological changes and ensure the protection of citizens' rights and data transparency. Ensuring inclusive digitization is also crucial so that all social and geographical segments can access its benefits and avoid a technological and knowledge gap. This can lead to significant opportunities for economic and social advancement but requires continuous efforts and comprehensive cooperation to overcome challenges and leverage opportunities effectively.<sup>2</sup>

### **Enhancing Education and Training in Digitization and Technology:**

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<sup>1</sup> Towards Completing the Digital Transformation Process, *website*: <https://elbadilabc-ar.dz/2024>, accessed October 25, 2024

<sup>2</sup> *ibid.*

An important aspect to consider is the need to strengthen education and training in digitization and information technology, ensuring the availability of skilled personnel capable of effectively applying and managing these technologies. Emphasis should be placed on developing youth skills and equipping them with the knowledge necessary to keep up with technological advancements and contribute to building Algeria's digital future. Partnerships with major tech companies can also play a vital role in supporting digitization efforts by facilitating technology transfer, funding, and training. These partnerships can be key to fostering innovation and developing local tech solutions tailored to the market's needs.

In summary, the High Commission for Digitalization is building a supportive environment for innovation and entrepreneurship in digitization by encouraging investment, simplifying administrative processes, and providing essential support for start-ups and innovators. The digitization agenda for Algeria in 2024 presents significant challenges but also offers tremendous opportunities for development and prosperity. Government, private sector, and civil society must collaborate with a spirit of partnership to achieve digitization goals and realize a prosperous future for the country and its citizens.

Moreover, a significant portion of the population remains unaware or uninterested in using digital services. Given the profound and widespread impact of digitization on social, political, and economic spheres, establishing technical, regulatory, and operational integration within the digital ecosystem has become essential. However, Algeria still lacks experience in operating large-scale electronic systems. The current approach, which often relies on multiple standalone systems that are limited in capacity and lack interoperability, hinders the necessary coordination and integration needed for comprehensive national development.

In light of these challenges, it is crucial to question the material and human resources allocated for achieving digital transition. Do we have a clear vision for digital transformation up to 2030? Are current projects simply a response to immediate challenges or part of a long-term strategic approach? While statistics indicate that 400 digital platforms exist, citizens remain largely unaware of these digital shifts due to insufficient communication and promotion.<sup>1</sup>

It is therefore essential to raise public awareness and encourage citizens to use digital platforms such as the "Your Gateway" public services portal and civil status document retrieval services. The accomplishments of digitization efforts need to be better utilized and promoted.

## **Section Five: The National Strategy for Digital Transformation**

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<sup>1</sup> Digitization in Algeria: Reality and Challenges of Globalization, website: <https://almostathmir.dz>, accessed October 25, 2024.

To address the aforementioned challenges, the High Commission for Digitalization has developed the first national strategy of its kind since independence, tailored to respond to the current economic, social, and cultural context. This strategy is structured around “five main pillars and 25 strategic objectives”, which include “infrastructure, human resource and skills development, digital society, digital economy, and digital governance.” As part of the infrastructure pillar, work has commenced on the establishment of the Algerian National Centre for Digital Services. The goal of this centre, which includes data centres in Algiers and Blida, is to “achieve digital sovereignty and localize national information, encouraging investors to expand services within the country using the same technologies available internationally.”<sup>1</sup> The centre will also coordinate the creation of a national database and link various ministerial sectors “that, while having made progress in digitization, have yet to exchange information or achieve the desired integration.”<sup>2</sup> The centre will rely on a national information system that includes the national interoperability platform to connect sectoral information systems, as well as a national database and an interactive national portal for digital services offering 40 public digital services for citizens and enterprises.

The national strategy for digital transformation is also based on two fundamental pillars: the Digital Law, currently being developed, and information and cybersecurity, with cooperation from the Ministry of National Defence. The Digital Law will serve as a comprehensive, unified framework regulating and structuring digitization, aiming to remove obstacles, simplify administrative processes, and address the gaps created by rapid technological development.<sup>3</sup>

Accordingly, the High Commission for Digitalization developed the national digital transformation strategy in consultation with relevant sectors and prepared an action plan for its implementation and monitoring. In this context, the commission was tasked with ensuring that sectoral digital plans align with the national digital transformation strategy and evaluating the achievements of various sectors, while proposing suitable alternative solutions based on performance indicators. It also ensures that the national strategy complies with information system security requirements in coordination with relevant parties. Additionally, the commission identifies priority projects and strategic investments and determines the means to mobilize the necessary human and material resources. It proposes legal, regulatory, and technical solutions to ensure the efficiency and continuous progress of digital transformation efforts. The commission also recommends measures to enhance digital sovereignty and boost the gross domestic product (GDP). It examines sectoral programs in the field of digitization

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<sup>1</sup> The National Digital Transformation Strategy Project is ready, <https://www.elkhabar.com/press/article/>, accessed October 25, 2024.

<sup>2</sup> Statement by Mrs. Maryam Ben Maouloud, Minister and High Commissioner for Digitalization, The National

<sup>3</sup> Digital Transformation Strategy Project is ready, *ibid.*

The National Digital Transformation Strategy Project is ready, *ibid.*

and evaluates the means of implementing them, while coordinating and collaborating with international bodies and organizations relevant to the field of digitization.<sup>1</sup>

Regarding the main components of the national digital transformation strategy, 14 workshops were organized during the preparation phase, covering topics such as the digitization of the public sector, ICT infrastructure, Algeria's international ranking in digitization, the digital market, financial digital services, the role of start-ups in economic development, ICT training in education, and digital inclusion.<sup>2</sup>

The strategy's core pillars include infrastructure and connectivity, modernizing public administration to achieve a paperless system, investing in the digital economy and digital industry, enhancing human capital, and ensuring national digital sovereignty. The Presidency has approved the 2025–2030 national digital transformation strategy, which serves as the national reference framework for implementing digital transformation in Algeria.

### **Conclusion**

The High Commission for Digitalization aims to establish a new management model for administrations and institutions based on enhancing transparency, facilitating transactions and procedures, and designing a comprehensive digital transformation strategy. Key elements of this strategy include assessing progress in digitization and coordinating relationships between the High Commission and ministerial sectors. It involves implementing measures to strengthen cybersecurity and achieving full digital administration and archiving. The strategy incorporates digitization into all census operations and connects remote areas with telecommunication and internet networks. It promotes electronic payment methods in commercial centres and shops and facilitates access to various digital services. Encouraging citizens to use these services is also a priority. The strategy includes involving universities and research labs in the digital transformation process and prioritizing digitization in sectors that directly affect citizens. Additionally, it calls for updating websites and portals for specific sectors and ensuring that digitization reaches all institutions and economic sectors, making it a part of daily interactions for citizens and organizations alike. This involves human capital development and support for training.

The High Commission for Digitalization plays an effective and proactive role in enhancing and improving government services provided to citizens, making them more efficient and accessible while reducing the significant administrative costs previously associated with public administration. It enhances transparency, integrity, and anti-corruption efforts by making data and information readily available to everyone, which contributes to building a modern, reliable, and effective administrative system.

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<sup>1</sup> "Mrs. Minister Maryam Ben Maouloud Reveals the Main Pillars," <https://www.awras.com>, accessed October 26, 2024.

<sup>2</sup> "Mrs. Minister Maryam Ben Maouloud Reveals the Main Pillars," *ibid*.

Consequently, the High Commission for Digitalization paves the way for advancement and improvement across many sectors.

It is evident that the High Commission also plays a crucial role in enhancing Algeria's economic competitiveness by simplifying the business environment and promoting national and foreign investments. It creates a favourable environment for small and medium-sized enterprises and supports innovation, technological advancement, and technology transfer. By supporting various economic sectors, boosting national and foreign investments, and building national capacities, the commission plays a pivotal role in fostering innovation and improving services for citizens.

Moreover, the commission seeks to integrate digitization across public and economic institutions, modernizing public services and ensuring this technological tool serves citizens effectively. Focus should be placed on developing digital infrastructure, enhancing technical capabilities, and raising technological awareness within society. Through these essential and mandatory steps, Algeria will be able to fully harness the benefits of the High Commission for Digitalization, achieving sustainable growth and development across all sectors and attaining the desired and anticipated progress in the medium and long term.