

ALGERIA'S DIGITAL HEALTH STRATEGY



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Abstract:

The Algerian Government is seeking to modernize public administration by adopting a digital strategy and using modern communication techniques in the administration, The objective is to facilitate and accelerate services procedures for the lowest cost and highest efficiency, achieve sustainable development, and avoid traditional management's weaknesses, slowness, and bureaucratic constraints, The digitization of Algeria's health sector is a necessary step to improve the electronic services provided to citizens, as it is one of the vital sectors through which the Algerian State is trying to achieve a distinctive and effective digital and administrative health level in the services, which requires the concerted efforts of the Government, the private sector and civil society to achieve the desired goals.

Key words: Digitization; strategy; Public Administration; Health Sector; Electronic Services.

Introduction:

Digital transformation is one of the most important tools adopted by Algeria in its strategy for the modernization of various sectors, including the health sector, using applications, digital platforms and information systems in health institutions. It has become one of the most basic mechanisms in the management of health information, especially in

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view of the accelerated technological development. This makes the quality of health services linked to the effectiveness of this information system.

Algerian health institutions are obliged to interact and keep up with internal and external threats through the digital transformation portal, which reflects the requirements of electronic management to keep pace with this qualitative leap in ICT and improve services for all citizens.

The analytical descriptive curriculum was adopted to describe the study through a valid scientific methodology and to provide data showing the digital health situation and the implications of digital transformation and its manifestations on Algerian society, thereby helping to employ statistics and field studies to explain the phenomenon clearly and accurately. The study aims to clarify the vision of the future that Algeria seeks through the Digital Transformation Portal to obtain distinctive and effective e-health services, in the light of the good use of digitization and the upgrading of health services.

By digitizing and automating many of the processes that were manually, digital technology contributes to improving health care by reducing costs (Brahmi & Dergal, 2022, p. 69).

Based on the previous information, we present the following problem:

How does Algeria's digital strategy contribute to the advancement of e-health services?

The study's axes are the following:

THE FIRST AXIS: Conceptual framework of the study

In this study, we will explore the concept and advantages of digitization, focusing on it in accordance with its requirements; the job refers to what the strategy is, its characteristics and its relationship to the government's digital strategy, as well as the concept of digital health.

1/ The concept of digitization:

The term "administrative digitization" is usually linked to electronic management, as many researchers have addressed it that digitization and electronic management both carry the same meaning and concept.

Definition of digitization:

"Digitization "and" digitalization "are fundamental bases used in relation to digital technology and the innovation process, but these important structures are often implicit in practice, and there is no clear consensus on the perception of either. As a result, the Department of Innovation's research used the same construction to indicate different phenomena (Gradillas & Llewellyn D. W. , 2023, p. 2).

Digital technology is a major event in the field of management today, critical in all digital things that remove restrictions and create New and exciting possibilities that affect everyone's lives and institutions, and the acceleration of the technical wave in recent years with the aim of speeding up business and reducing costs. (George Westerman, 2014, p. 12).

The technical process is to change analog data to a digital image, and eventually to binary numbers is the adoption and use of this information technology in individuals, institutions and organizational and community contexts for processing, storage and information delivery using threads of individual and zero (Frenzel, Muench, Bruckner, & Veit, 2021, p. 2).

Digitization advantages and characteristics:

The researcher "Anushka Kanoongo" develops several advantages, most notably:

Real-time data and information entry. Eliminate the verification, movement, storage and processing of papers. Promote the paperless environment with no risks from forged documents and secure data. Easy access, recovery, transfer and transparent flow of funds (Kanoongo, 2017, p. 2).

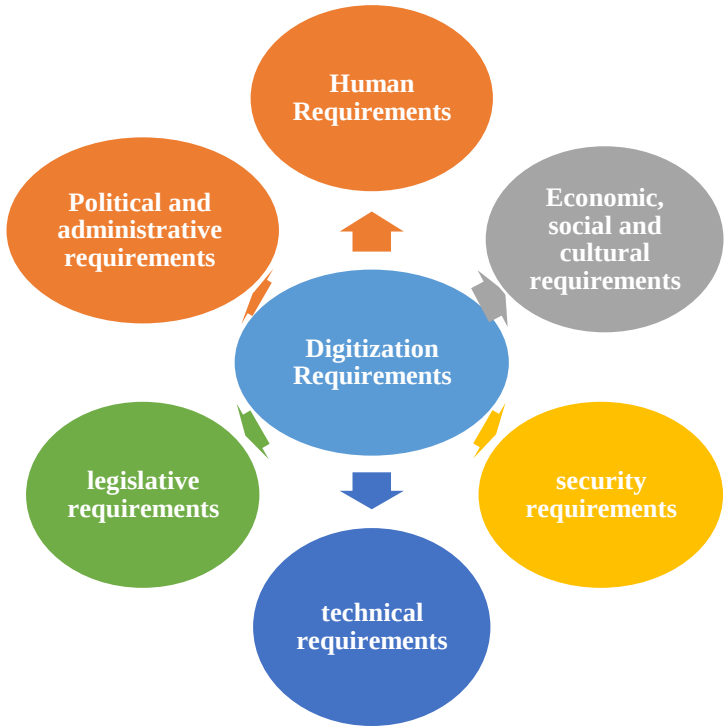
The researcher "Ada Scupola" adds: Digitization continuously develops and improves work procedures and delivery methods in the public sector and provides the best possible service and develops and implements public management and leadership initiatives. Digitization also improves the efficiency of the public and responsible management to implement the strategy (Scupola, 2019, p. 274).

Digitization provides an opportunity to improve government and, with proper planning, contributes to the sustainable development agenda, which is seen as critical in the coming years and to provide public services through specific ICT solutions that would include integrating e-service technologies into the context of sustainable development policy

challenges, an example of the evolving relationship between technology and public administration (Burlacu & et al, 2021, p. 35).

Digitization Application Requirements:

The digitization application's requirements are shown in the figure:



Source: Student's preparation

To achieve e-governance, the necessary infrastructure and technical requirements must be available through political will, the availability of the required human census and the development of the technical structure. Legislation and legal texts to facilitate e-governance (Kamri & Alla, 2022, p. 164).

2/ concept of strategy:

The Strategy is a Greek term of origin, a Greek word for "strategy", and in Arabic it means "leader", initially emerged as a military military term and evolved as its use evolved, resulting in a variety of uses of the term strategy to cover different areas.

Strategy definition:

The strategy is a pattern of decisions that define and reveal objectives or purposes, produce policies and master plans to achieve the goals, and define the scope of the organizations' work and the type and nature of organization it intends to provide to its shareholders and employees (Nickols, 2016, p. 4).

Sir Basil H. Liddell Hart defined it from wars and battles from the time of the ancient Greeks until the Second World War as "the art of using battles as a means of winning the goal of war (Liddell , 1967, p. 333)

There is a short definition of military strategy: "The art of distributing and applying military means to achieve policy objectives" (Nickols, 2016, p. 2)

E-Government Strategy:

The strategy focuses on raising the level of electronic transformation of the government and its components and providing high quality services through different channels (Mohammed Khamees & Tume Atua, 2020, p. 68)

Enhancing transparency, questioning and wise governance where short-medium- and long-term activities are identified with achievable goals (Gathungu & Mungai, 2012, p. 144).

Strategy for achieving the appropriate government services needed by citizens within its means, Through the strategy of switching from software-oriented services to integrated electronic service and creating dynamic interaction by providing services through the online portal.

The digital strategic force lies in its area and objectives as a means of achieving the Government's strategic objectives and focusing on information technology as a fundamental goal of digital transformation (Kane & et al, july 2015, p. 6)

3/ Digital Health Concept:

They include all the necessary technological mechanisms and tools such as computer, Internet, Intranet, Extranet and all those associated with ICTs in the fields of health.

E-health means the good and safe use of ICT to support health and related areas, including health care services, health monitoring, targeted

health publications, knowledge and research in the health field (World Health Organization, 2005, p. 1)

Such names included 'Information and Communication Technology in Medicine' or 'Information Technology in Medicine' (David Walker, 2024, p. 7).

THE SECOND AXIS:

Algerian experiment in digital health

Algeria's experience at the level of e-health services is a recent one compared to other countries, which is of great importance to this sector; The Algerian Government has paid great attention to this vital sector and has been reflected in many efforts.

E-Health Strategy:

Through the development and development of the electronic health vision in Algeria, by identifying the priorities of the health institution and identifying capacities for the development of future plans that contribute to the development of health services essential for the implementation of these conclusions, as well as promoting a culture of work with participation, sharing of health information and data and coordination among workers to improve the performance of services (Bentlemsani , 2023, p. 824)

1/Managing and directing healthcare:

Services that enable healthcare professionals to effectively manage individual caregiving and monitor the health of a larger population such as: (Ovretveit , 2004, p. 369)

Monitoring adverse events and risk analysis while identifying those at risk while managing healthcare operations, improving clinical practice, designing and improving health programs, developing health policies, health care research and clinical research.

Digitization of more than 300 public neighbourhood clinics:

Out of 1,600 neighbouring clinics located across the national territory, the Ministry has selected as the first phase two clinics from each neighbouring public health institution, equivalent to more than 300 neighbouring clinics across the country, to initiate the application of automated media to first-class care for patients' files (Algerian Press Service, 2016)

This process aims to improve the health service and initially affects public neighbourhood clinics followed by hospital institutions and then university hospital institutions to be considered somewhat complex in terms of digitizing each patient's file and facilitating the sharing of their information among actors in the field.

National Electronic Registry System for Cancer Patients

This register allows for the evaluation and follow-up of diagnostic efficacy pathologies through which a National Cancer Control Scheme (2015-2019) was developed and all data on cancer were developed by national websites specializing in cancer control and a Framework Convention against Tracing. (MSPRH, 2014, p. 9)

Smart Health Solutions and Applications have à positive impact:

Digital transformation in health and pharmacy and the study of the access of smart solutions such as applications, software and websites to their heights in the field of health, in an environment dominated by continuous development that promises to have a significant impact on interactions within the sector, by the introduction of new technologies in the field of health care for information management.

During the activation of workshops and conferences and seminars on this subject, spaces were dedicated to showcasing the best technological solutions, which allowed visitors to weave effective links and share various experiences in the field of digital health pharmaceutical laboratories, scientific societies, patient protection societies, hospitals, GPs and specialists, scientific and medical research centers and laboratories, private clinics and telemedicine workers, and an initiative launched by "Sense Healthcare" is a multi-channel communication agency specializing in health with the support of: (ben haha, 2017, p. 4)

- World Health Organization (OMS).
- Algerian Society for Telemedicine and Electronic Health (SATES).
- The Algerian Society of Public Medicine (SAMG).
- The Centre for the Development of Advanced Technologies (CDTA).

2/The most important digital health projects within the framework of Algeria's strategy:

Algeria's health sector aims to universalize digitization according to a specific strategy in order to ensure that all citizens have access to quality health care, as confirmed by the Minister of Health "Abd al-Rahman bin Bouzid", where he explained in an assessment meeting in the capital on 20/12/2020 about the activities carried out by the Ministry for the digitization of the sector that the strategy to be adopted is based on modernizing and modernizing health structures through several digital projects:_(Algerian Press Service, 2020)

- Digital Hospital Project.
- Project of digitalization of health structures.
- Project of digitalization of health structures.
- Digitizing contractual relationships with social security agencies.
- Project to approve the patient's electronic health record.
- Digitization of the central administration and linking with health institutions.
- Electronic Pharmacy Project.

Introduction of Algeria's health information system (SIS DZ)

The Health Information System (SIS.DZ) consists of six applications: (Ministry of Health of Algeria, 2013, p. 5)

- Firstly**, Human Resources Information System (Rh Santé Dz).
- Secondly**, Compulsory Disease Declaration Information System (MDO).
- Thirdly**, Maintenance Information Systems (GMAO).
- Fourthly**, Health Activities Application (SISDZ 8080).
- Fifthly**, Information systems on the electronic file for vaccination (DEVAC).
- Sixthly**, EVEN.SCO information systems.

Conclusion:

Algeria's vision in the health sector requires an effective national digital strategy that reflects in its content the establishment of multiple requirements, including technical, legal, human, material, etc., to constitute the basic indicators for measuring the level of readiness of the Algerian State in activating digital health.

Through this study, the actual reflection of e-services in the health sector has been monitored through the procedures and recommendations of the Ministry of Health. In an effort to address the gaps in the digital

transformation project for public administration in Algeria, while highlighting the health sector, we have reached many conclusions:

1- Relying on the traditional pattern and slowness of electronic interaction hindered the strategic path in digitizing public administration, which we see through the low level of health services, which requires us to follow modern approaches, mainstream the use of modern communication techniques, and exploit the digital transformation of the health sector.

2- Achieving effective electronic health services requires actors to provide digital requirements in accordance with the aspirations of health institutions' companions and employees.

3- The fluctuation in digital strategic readiness in Algeria's public administration has been negatively reflected in the level of effectiveness of electronic health services.

Recommendations:

1- Seek procedural commitment to apply the Ministry of Health's instructions and commandments regarding the health informatics system and the dissemination of digital services in the health sector.

2- Expanding digital health and e-innovation at the national and international levels.

3- Establishing innovation and information support centres to promote digital health solutions that are in line with needs within the state's capabilities by promoting integrated intersectoral information participation in the development of digital health.

4- Value and intensify efforts to prioritize digital health.

5-Senior departments of health institutions build strategic thinking for knowledge management, promote, and apply it through various programs.

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