

# ANALYSIS OF THE STRATEGIC DIGITIZATION PLAN (SDP) AND ITS IMPACT ON THE ARCHIVAL SERVICES OF ALGERIAN UNIVERSITY INSTITUTIONS

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## **Abstract:**

Digitization represents a pivotal and contemporary dimension of information and archival management within Algerian university institutions. This study endeavors to establish a methodological framework for the execution of the Strategic Digitization Plan (SDP) across the archival services of these institutions, thereby enhancing quality, efficiency, and organizational effectiveness, and facilitating expedited access to archival documents and information.

Initially, the study presents a conceptual overview that delineates the notions of digitization, digital transformation, and digital data archiving, while clarifying the distinctions between the processes of digitization and digital transformation. It also critically examines significant prior research in this domain. This inquiry aims to elucidate and scrutinize the essential steps and furnish methodological support to aid the implementation of the SDP within the archival services of Algerian university institutions.

The study advocates for the adoption of the Strategic Digitization Plan and the execution of its specific measures and guidelines to realize a comprehensive digital transformation and fully leverage its benefits in augmenting information and archival management. Furthermore, it recommends implementing necessary safeguards to secure information and preserve the archival and scientific assets of the institutions through appropriate digital preservation techniques.

**Keywords:** Digitization, Archive Services, Documents, Strategic Plan, Higher Education Institutions, Algeria.

## **Introduction:**

With the escalating volume of documents and information managed, the reliance on traditional methodologies for managing physical and paper-based resources becomes untenable and economically burdensome. This context underscores the necessity of the Strategic Digitization Plan in steering Algerian university institutions towards the adoption of advanced digital solutions and appropriate technologies to accomplish their objectives.

The exploration, analysis, and exposition of the Strategic Digitization Plan, with the aim of its application to the archival services of Algerian university institutions, seeks to equip

archivists and administrators with a robust methodological framework to attain the objectives of digitization and digital transformation within this academic milieu.

By implementing the Strategic Digitization Plan, Algerian university institutions will not only improve their archival processes but also enhance the management of academic documents and records. Consequently, the study will delineate a series of practical measures and guidelines to ensure the systematic and efficacious implementation of digitization initiatives, thereby contributing to the institutions' objectives of augmenting quality, efficiency, and organization, and enabling swift access to information and archival documents.

Moreover, digital transformation within university archival services will bolster the preservation of cultural and scientific heritage across Algerian university institutions. Through digitization, historical documents and archives can be transformed into digital formats, preserving their integrity and enabling their widespread dissemination and publication. Thus, digital transformation opens vast opportunities for research, education, and academic collaboration on both local and global scales.

## **1. Conceptual Introduction (Digitization, Digital Data Archiving)**

### **1.1 Digitization and Digital Transformation in Corporations and Institutions:**

The concepts of "Digital Transformation" and "Digitization/Digitalization" are increasingly prevalent, with frequent news of new initiatives and conferences, alongside stories of companies and governments that have embarked on digital transformation journeys. Gartner defines Digitization as the process of converting information from analog to digital form without modifying the original process, also known as digital enablement.

Prominent examples of Digitization include the adoption of digital signatures in place of manual ones and the transformation of handwritten texts into digital formats such as PDFs or image files. Conversely, Digitalization, as defined by Gartner, entails the use of digital technologies to transform a business model, thereby creating new revenue streams and value-creation opportunities, it is the essence of evolving into a digital enterprise.

Examples of Digitalization include instantly creating a bank account from your mobile phone or buying and selling products on e-commerce platforms.

It can be said that the process of Digitization is the conversion of information from a physical form to a digital form, while Digitalization is the practice of using technology to enhance business processes. In summary, Digitization pertains to information, whereas Digitalization relates to processes. (Patrick, 2022)

### **1.2 Digitization in the Archival Sector:**

The advent of digitization in archival practices represents a relatively recent paradigm shift, yet it has significantly reoriented the field, positioning archivists as pivotal figures within this new framework. In periods when institutions grappled with complex challenges related to management, organization, and retrieval of archival materials, the emergence of digitization offered a robust solution to numerous impediments encountered by administrators, archivists, and researchers alike.

The considerable volume of documentary output, coupled with the substantial challenges faced by governmental institutions in managing, preserving, and maintaining these documents, which represent the collective memory of societies and the historical narrative of

states, necessitated a shift towards the adoption of advanced technological solutions. Digitization has been strategically implemented as a means to substantially alleviate the day-to-day challenges faced by archivists, thus enhancing the efficiency of archival processes. (Kharfi, 2015, p. 130)

As defined by researcher "Khetir Fouzia," digitization involves the reproduction of existing documents, whether in paper form or another medium, into digital format via scanning technology. This process ensures that the digitally reproduced documents are identical to the original documents in both form and content.

For a document to be considered effectively digitized, it must accurately replicate the original document's size and the detailed information it contains. Furthermore, these digitized documents should be readily accessible, easily readable, and clearly usable, thereby enabling their utilization in line with the specific objectives that necessitated their digital transformation. (Khetir, 2012, p. 73)

Moreover, digitization can be elucidated as the conversion of analog data into digital format. This transformation facilitates the widespread accessibility of data and information, enhances the ease of accessing information sources, and delivers digital services distinguished by their speed and quality. (Reis, Amorim, 2019)

Additionally, digitization is described as the process by which documents of diverse types, including individual papers, records, books, encyclopedias, and periodicals, are converted from their conventional physical form to a digital format through the use of scanning technologies. (Mezhoud, 2020, p. 34)

In a broader context, the concept of digitization spans across various disciplines and can be defined as the process of transforming information, activities, and processes from their traditional or manual forms into digital formats utilizing cutting-edge technology. This comprehensive process involves multiple facets and necessitates the employment of digital software and hardware, aimed at facilitating and improving activities across a range of domains.

### **1.3 Concept of Digital Data Archiving:**

Archiving is the systematic process of preserving and organizing documents in a way that facilitates efficient retrieval. It is an active and integrated process that encompasses the management of documents and records from their creation to the determination of their final disposition -whether preserved or destroyed- and their subsequent availability for use. (Al-Mashhadani, 2018)

Archiving involves the transfer of historical data from one file system to another, and occasionally, from one physical location to another, to maintain the data's longevity without compromising its accessibility.

The term also encompasses comprehensive data backup processes, which include safeguarding data files and folders to protect them against physical damage to servers or system failures caused by viruses or unsuccessful operations. According to the Dictionary of Documentation and Archiving Terms, archiving is "the process of preserving and storing documents that have ceased to be of immediate use- i.e., documents destined for historical archives."(Milad, 1982),

While the foundational principles of archival work- preservation and retrieval- remain constant, they have evolved to adapt to a new digital environment, utilizing novel methods and technologies to manage documents now stored in databases and virtual storage spaces.

Jean-Luc Sabourin (2009) defines Digital Data Archiving as "the assembly of procedures, tools, and methodologies designed to collect, identify, classify, and securely store electronic content, with the aim of maintaining accessibility over time, whether for verification or informational purposes."

Additionally, Abdel Ghafour (2000) describes it as the process of "preserving data and information on an electronic medium long-term due to its significance and rarity, and for historical or security reasons, making it retrievable when needed." From this perspective, the archiving process serves three critical functions: collection, preservation, and ensuring data accessibility, with preservation encompassing numerous detailed procedures aimed at securing data for future access.

## **2. Literature Review:**

### **2.1 Study by Hassan Madasi titled: "*Digitization of Algerian University Archives in the Context of Moving towards Electronic Administration*":**

This study rigorously examined the transition of Algerian university archives to digital formats, contextualized within the broader shift towards electronic administration. Electronic document management stands as a fundamental cornerstone of electronic administration, with digitization serving as the initial step in this transformative process.

The study underscores the critical importance of transitioning university archives to digital formats and explores their relationship with electronic administration. It assesses the current status of archival digitization initiatives across Algerian universities and identifies the prevalent challenges encountered. The findings highlight a notable delay in integrating university archives into electronic administration systems, with an absence of registered projects dedicated to archive digitization within Algerian universities.

The study offers a series of recommendations aimed at overcoming these challenges and fostering suitable conditions for a successful digital transition in university archives. It also addresses general technical and practical proposals to facilitate this process, emphasizing the necessity for adequate conditions that support the successful digital transformation of university archives and the need to address the challenges this process encounters.

The research stresses that digitization extends beyond a mere technical transformation; it represents a comprehensive process that impacts administrative management and the development of university services, necessitating profound changes in the existing administrative systems of universities. (Madasi, 2022)

### **2.2 Study by Mohamed Ahmidatou titled: "*Digitization Policy in the Sector of Higher Education and Scientific Research*."**

This study delves into various dimensions, including the political, legislative, and institutional frameworks of digitization within the sector of higher education and scientific research. It highlights how Algeria relies on the "Algerian Electronic Strategy 2013" as a foundational strategy for modernizing and digitizing higher education and scientific research.

This strategy is designed to bolster the digital economy and enhance Algeria's standing in the global system by supporting sectors like information and communication technologies.

The legislative framework discussed includes laws that guide the digitization process in higher education and scientific research, notably the Higher Education Guidance Law of 1999 and the Scientific Research and Technological Development Guidance Law of 2015.

The study also explores the institutional structures that support the implementation of digitization policies, detailing the roles of central administration and educational institutions in spearheading digitization initiatives. While the study does not enumerate all challenges, it hints at the need for enhanced support in developing infrastructure and training academic and administrative staff to adapt to digital transformations.

Future goals for digitization in higher education and scientific research are anticipated to include improving the quality of education and research, enhancing international and regional cooperation, and boosting research productivity. (Ahmeidatou, 2020)

### **2.3 Study by Abbas Amal titled "*Requirements of the Strategic Digitization Plan for the Higher Education Sector: Reality and Aspirations!*"**

This study focuses on the ongoing efforts to develop and improve the higher education sector through technology and digitization. It critically evaluates the progress made thus far and the comprehensive studies conducted, which have not fully satisfied the Ministry's expectations, prompting the recent issuance of the Strategic Digitization Plan for the higher education sector.

This plan aims to assess the current state of digitization within the sector and to outline a future strategy for digital transformation. It seeks to identify both the strengths and weaknesses of digitization practices in higher education and envisions a successful future development of this sector. The challenges discussed include the inadequacy of digital infrastructure, resistance to change among faculty members and students, and the necessity for training human resources to adeptly handle new technologies.

The study reviews the strategies that the Ministry of Higher Education plans to adopt to achieve the digitization goals, which include developing electronic platforms, updating educational curricula, and integrating modern technological tools into the educational process.

Recommendations stress the importance of training teachers and students in the use of digital tools, improving the infrastructure of communications and information technology, and enhancing international cooperation in the field of digitization. The researcher anticipates that the successful implementation of this plan will substantially improve the quality of higher education in Algeria, thereby contributing to better educational outcomes and enhancing scientific research. (Abbas, 2023)

## **3. Explanation of the Strategic Digitization Plan (SDN) and Its Relationship to University Archival Services:**

### **3.1 Introduction to the Strategic Digitization Plan and Its Objectives:**

The Strategic Digitization Plan encompasses seven (7) strategic axes, which focus on digitization for supporting faculty development, digitization in the service of training offerings, digitization to support student success, and digitization in the service of research activities. Furthermore, the plan revolves around the role of digitization in supporting permanent infrastructure, modern management, and the status of digitization in national and international university exchanges.

It is noted that the axes of the plan branch into sixteen (16) strategic programs and one hundred two (102) projects, including forty-two (42) platforms, with execution spanning two years from November 2022 to December 2024. (Algerian News Agency, 2022)

The Strategic Digitization Plan (SDN) was issued on October 24, 2022, along with a user guide by the institution of higher education. It aligns with the strategic vision of the institution, which was developed based on the Ministry's policy on education and research. The SDN allows for:

- Preparing the digital future for the higher education institution.
- Allocating and identifying the necessary digital tools and resources in time and space. (User Guide for the Strategic Digitization Plan, 2022)

Furthermore, the SDN aims to identify the strengths and weaknesses of digitization efforts within the higher education sector, envisioning a strategic roadmap for digital transformation. This plan is pivotal in defining the current state of digitization and crafting a vision for its successful future development within the sector.

According to Kamel Badari, Minister of Higher Education and Scientific Research, the Strategic Digitization Plan is set to become a benchmark for evaluating the quality of higher education institutions through their integration and utilization of digital capabilities.

It represents not merely a directive from the supervising ministry but a collective endeavor involving the entire higher education community. The plan stipulates a phased involvement of institutions under the Ministry of Higher Education and Scientific Research, prioritizing various educational and research institutions as follows:

**Table 1: Priorities for Digitization of Institutions under the Ministry (Strategic Digitization Plan, 2022)**

Priorities		
- Universities	- National Office for	- National Research
- Institutes	University Services	Centers
- Higher Schools		
- Higher Schools for Teachers		

### 3.2 Presentation of the Stakes of the Strategic Digitization Plan:

The Strategic Digitization Plan consists of twelve (12) challenges, which stem from seven (07) axes, and these axes lead to programs, from which projects emerge. The following tables illustrate this:

**Table 2: Challenges of the Strategic Digitization Plan (Strategic Digitization Plan, 2022)**

Challenge	Title
1	Sourcing and Acquiring Digital Competencies
2	Successful and Secure Infrastructure
3	Digitization as a Support for Training and Visibility
4	Student Success and Professional Integration
5	Scientific Research with Visibility and Value Generation

6	Utilization of Artificial Intelligence
7	Pedagogical Renewal and New Forms of Knowledge Acquisition
8	Modernization of Society (Lifelong Training)
9	Training Modes and Multimedia Supports
10	Information System
11	Dematerialization and Digitization
12	Visibility and Attractiveness of the Institution and Its National and International Relations

### 3.3 Analysis and Explanation of Challenge Number (11) Intangibility and Digitization and Its Impact on Archival Services:

"Dematerialization," as defined by Marie-Anne Chabin in the *New Dictionary of Archiving* (2010), refers to the electronic processing of data aimed at transitioning documents, currently in paper form, to electronic formats in the future. This transition can occur through methods such as scanning or by revising information production and management processes. (Chabin, 2010)

The essence of dematerialization involves managing data and professional documents (such as correspondences, contracts, invoices, manuals, technical contents, administrative supports, etc.) entirely electronically. These documents typically circulate within institutions or through exchanges with external partners such as administrations, clients, and suppliers. The user often equates the process of dematerialization with digitization. (Chezelles, 2006)

In this context, "Digitization" refers to the process where data and information in paper files and documents are converted into digital form to preserve and protect them. This involves creating discrete units of data called bits, which organize the information and then process it in separate units called bytes.

When data and information are converted to digital forms, they can be processed by computers and computing-capable devices like digital cameras and digital hearing devices. To clarify further, the term "digitization" applies to processes like scanning an image or converting a report into a PDF format and storing it on a computer.

In the process of digitization, the information remains the same; what changes are the accessibility and storage modification, benefiting companies by enabling immediate and easy access to key information.

The objectives of relying on digitization technology are as follows:

- Convert information recorded in paper documents into digital information accessible without barriers.
- Increase the efficiency and effectiveness of administrative processes, by reducing the time and effort spent in data preservation, access, and completing operations within the organization.
- Prolong the life of data by converting it into a digital form that lasts over time without the risk of damage or loss.
- Allow for data recovery in case of electronic equipment failure or incorrect procedures.

- Facilitate data finding through the organization of digital documents and their integration into the same file, such as texts, images, and videos, which can be named according to content to ease the search process. (Bakka, 2023)

One of the most significant impacts and reasons behind the adoption of digitization in university archival services include:

- **Storage Space Issues:** Archival institutions are increasingly confronted with the need for additional space to accommodate the influx of documents received from various departments and external institutions. This escalating demand for storage space stems from the continuous accumulation of archival stocks. Such accumulation poses a significant threat to the integrity of the original context in which these documents were produced, adhering to the principle of respecting the fonds. Additionally, the physical retrieval of these documents becomes progressively challenging, particularly as they continue to be in high demand among researchers.
- **Physical Nature of Original Documents:** The frequent handling and use of paper-based documents within archival services significantly jeopardize their physical condition. Over time, this repeated physical interaction leads to deterioration, which can compromise the longevity and readability of these valuable documents. In response, archival officials have increasingly considered the option of digitizing these documents to create digital replicas. Such digitization serves a dual purpose: it preserves the original documents from further physical wear and provides easier access to their contents, thereby minimizing the need for direct interaction with the physical documents.
- **Large Volume of Archival Stocks in Paper Form:** The substantial volume of documents stored in paper form within archival repositories presents considerable challenges. This vast accumulation not only requires extensive physical space but also deters researchers due to the daunting task of navigating through voluminous paper archives. This barrier often leads to underutilization of valuable informational resources. Consequently, digitization emerges as a pragmatic solution, transforming bulky paper archives into easily accessible digital formats.
- **Loss or Theft of Historical Archival Documents:** Archival documents are often irreplaceable, embodying unique historical records. The potential loss or theft of these documents could irrevocably erase important parts of history. In light of this, digitization provides a safeguarding mechanism by creating digital surrogates of the originals. This not only ensures the preservation of the content but also secures against the physical loss or theft of documents.
- **High Costs of Equipping Archival Storage Facilities:** The financial implications of maintaining and equipping archival storage facilities are considerable. These facilities must not only accommodate the physical bulk of archival materials but also ensure their preservation under optimal conditions to prevent deterioration. (Kharfi, 2015, p. 134)

**3.4 Presentation of Strategic Axes and Analysis of the Sixth Axis (6) Digitization as a Support for Contemporary Management:**

As previously mentioned, the twelve (12) challenges identified for the ministry's digital vision are distributed into seven (7) strategic axes, ultimately forming the strategic vision of the ministry responsible for higher education. The relationship between the challenges and strategic axes in this plan is color-coded. The table below illustrates this:

**Table 3: Relationship between the Challenges and Axes of the Strategic Digitization Plan (Strategic Digitization Plan, 2022)**

Challenges											
1	3	9	8	4	7	5	6	2	10	11	12
Axes											
1	2	3	4	5	6	7					
Accompanying Digitization User Training	Digitization for visual presentation and competent pedagogy	Digitization in service of student success	Digitization in service of research activities	Digitization as support for infrastructure	Digitization as support for modern management	National and international relations.					

➤ **Analysis of the Sixth Axis (6) Digitization as a Support for Contemporary Management:**

The sixth axis (6) contains three programs as follows (Program 11 relates to supervision, schooling, human resources, properties/Program 12 relates to intangibility and digitization/Program 13 involves strengthening communication tools and data and information exchange and sharing).

Digitization as support for contemporary and modern management signifies the necessity of implementing tools, capabilities, procedures, and methods for modernizing management and governance of the university institution to provide better user services and ensure the sustainability and adaptation of university practices.

In other words, it means using digital technology to enhance administrative processes in the higher education and scientific research sector. This includes introducing advanced information systems and digital programs and tools aimed at making management more efficient, faster, and effective. Digitization in the context of management may include:

- **Process Automation:** Replacing manual processes with automated solutions to reduce errors and increase productivity.
- **Data Analysis:** Using big data and analytical techniques to understand patterns and trends to improve management decisions.
- **Communication and Collaboration:** Enhancing communication between departments, colleges, universities, students, and professors through digital platforms that facilitate collaboration and information sharing, providing faster and more customized service.
- **Digital Security:** Enhancing information security and protecting data through advanced technical tools.

- **Continuous Innovation:** Using digitization to develop new services and improve existing ones.

### 3.5 Presentation and Analysis of Program Number 12: Dematerialization and Digitization According to the Strategic Plan

**Table 4: Program Number 12 Related to Dematerialization and Digitization (User Guide for the Strategic Digitization Plan, 2022)**

Project	Explanation	Indicators
12.1 Define a dematerialization policy	All activities at the institution's management level (continuous improvement...), college management documents, support structure documents (purchasing, etc.)	Was the report sent to...
<b>12.2 Materialize all processes: administration, business, support</b>		Number of non-material processes by type? User satisfaction.
<b>12.3 Digitization of supports and archives</b>		Number of documents scanned.
<b>12.4 Electronic signature to verify document authenticity without printing</b>		User satisfaction rate.
<b>12.5 Preparation of electronic signatures</b>		Usage rate of the signature writer

➤ **Analysis of Program Number 12 Related to Dematerialization and Digitization:**

Table (4) presents information on the dematerialization and digitization according to the guiding plan. It consists of several columns containing projects, explanations, and associated indicators.

- The table outlines specific steps for the institution's transition toward a less paper-reliant environment. Each section includes a description of the step, its rationale, and the indicators used to measure success. This clarity facilitates understanding for readers and staff in management and archives of the required processes and their objectives.
- The provided explanations for each step help clarify the goals and the reasons behind each activity. For example, the table notes that the digitization of supports and archives facilitates document security and ease of search, highlighting the practical benefits of this step.
- Mentioned indicators, such as the number of documents scanned or user satisfaction rates, are valuable tools for measuring the progress and effectiveness of digital transformation. It is essential that these indicators are measurable and directly related to the set goals to ensure tangible results are achieved.
- The institution must ensure ongoing evaluation of the digitized processes to continuously improve and ensure compliance with updated security and technical standards. This strategy is crucial for maximizing the benefits of technology investments.
- Steps like the preparation and implementation of electronic signatures indicate a modern shift towards digital technologies that allow for greater efficiency and security

in transactions and documentation. It is important that these processes comply with national and international legislation to ensure legality and recognition.

The table provides an overview of the steps taken to remove the physical nature and achieve digitization in various processes. The mentioned indicators can be used to assess the project's progress and measure the success of the transition to digitization in the university institution.

#### **4. Contributing to the Transformation and Implementation of Strategic Axes into a Roadmap for Archival Services**

The higher education institution has released a comprehensive guide delineating the steps to implement the digital strategic plan through a structured roadmap. This roadmap outlines the necessary pathway to achieve the outlined goals, with continuous assessment using designated indicators.

##### **4.1 Tools for Measuring the Success of the Digitization and Dematerialization Project:**

According to the guide for the Strategic Digitization Plan, the advancement of this plan will be periodically evaluated using Kaplan's performance indicators (KPIs) associated with the projects. The guide proposes a roadmap model that encompasses various components including a project schedule, detailed explanations, and pertinent indicators.

The success of the project is measured through Robert Kaplan's performance indicators, developed in collaboration with David Norton. Known for creating the "Balanced Scorecard," this tool not only assesses financial metrics but also integrates three additional domains: customer satisfaction, internal business processes (focusing on metrics such as cycle time, product quality, and process efficiency), and learning and growth (which involves improving employee capabilities, fostering innovation, and facilitating knowledge transfer).

These four dimensions collectively assist organizations in achieving their strategic objectives in a balanced manner, offering a holistic and integrated view of organizational performance. (Plascka, 2012, p. 75)

##### **4.2 Explanation of the Working Method:**

The initial step in the recommended working method involves planning the work according to the project, which targets the digitization and dematerialization of management and archival processes. (Utilization of a detailed schedule is advised to streamline this phase). The subsequent step encompasses the execution of the planned work, followed by verification through a comparative and amendable schedule.

The final stage involves interpretation and improvement, where reliance on both qualitative and quantitative indicators is crucial. (See: User Guide for the Strategic Digitization Plan, 2022, pp. 7, 6, 3) This method is modeled after Deming's wheel, a framework developed by Deming in the 1950s to improve the quality of processes, products, and services or to address problems systematically.

This approach comprises four stages:

- **Plan:** Identify and understand the problem and develop solutions that could resolve it, selecting one solution to implement.
- **Do:** Test the chosen solution in a limited scope pilot project to verify if it will resolve the problem.

- **Check:** Study and evaluate the outcome of the previous stage, measuring the effectiveness of the chosen solution and whether it actually helped to solve the problem and achieve the desired goal.
- **Act:** Based on the effectiveness of the tested solution, make an appropriate decision at this stage.

If the solution is effective, it will be formally adopted and implemented to resolve the problem; if it does not achieve the desired outcome, return to the first step and select an alternative solution. (Meem, 2023)

#### **4.3 General Considerations for Implementation:**

Digital projects for archival services vary according to needs and objectives. Here are some general steps to assist in planning and implementing digitization projects in Algerian university archival services:

- **Assess Needs and Objectives:** Precisely define the goals the institution and university archive service aim to achieve through the digitization project, whether to improve access to records or protect and preserve them.
- **Analyze Records and Holdings:** Evaluate the holdings you wish to digitize, including the type, quantity, and current condition of documents.
- **Determine Financial and Human Resources:** Identify the budget available for the project and provide the necessary human resources, including experts in digitization and archival content.
- **Select Appropriate Technology:** Choose suitable tools and technologies for the digitization process, including digital devices, software, and content management systems.
- **Develop a Digitization Plan:** Create a detailed plan that includes a timeline for the digitization process, covering preparation, evaluation, execution, and verification stages.
- **Implement the Digitization Process:** Execute the digitization plan according to the defined schedule, adhering to best practices in digitization and records preservation.
- **Test and Evaluate Results:** Test the outcomes to ensure the quality of digitization and compliance with standards, evaluating the project's performance and its success in achieving specified goals.
- **Maintain Digital Records:** Ensure a sustainable plan for the long-term preservation of digital records, including maintaining backups.

#### **4.4 Special Considerations for Implementation:**

The Strategic Digitization Plan for the archival services of university institutions should focus on several key areas:

- Handling paper archives
- Managing electronic archives.
- Managing hybrid archives (paper and electronic)
- Future management of electronic archives only.
- Identifying all the tools necessary for the digitization process.
- Determining the time and place for conducting the digitization process.
- It is essential to recognize the administration producing the activity documents.

- Understanding the organizational structure and identifying the heads of services.
- Preparing a document management schedule for the producing services.
- Allocating training workshops for: heads of services of the administration producing activity documents, head of the archive service, archivists working at the archive service level, archivists working at the level of faculties and institutes.

### **Conclusion:**

The adoption of the Strategic Digitization Plan within Algerian university institutions represents a pivotal step toward digital transformation, significantly enhancing archival processes. Through digitization, these institutions can greatly improve the efficiency of archive management, which in turn supports scientific research and education, and streamlines storage, retrieval, and preservation of documents. Additionally, it augments the quality of services provided to researchers and other users of archival resources.

It is imperative, therefore, to advocate for further research and studies on the implementation of the Strategic Digitization Plan specifically within the archival services of Algerian university institutions. Sharing outcomes and experiences is essential for disseminating best practices and fostering sustainable development in this sector.

This collaborative and informed approach will ensure that digitization efforts are not only effectively implemented but also sustainable, addressing the long-term needs of the institutions' archival services. Ultimately, this strategy aims to transform archival management into an operation that is both more efficient and more accessible in the digital era.

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