

Digital culture is a fundamental pillar of digital transformation in archival institutions

الثقافة الرقمية دعامة أساسية للتحويل الرقمي في المؤسسات الأرشيفية

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Abstract:

Archival institutions are currently facing major challenges posed by the digital revolution, as the world is constantly accelerating and no one is waiting for anyone to catch up except those who work hard to keep pace with these developments, which have brought about a new entity that we can call the digital society. Archival institutions, as information centers, have always been among the most important centers for the dissemination of culture and knowledge among individuals. Previously, we had a computer inside a library, but now we have a library inside a computer. This requires digital skills on the part of both those who run these institutions and those who benefit from them. This study aims to shed light on digital culture as one of the most important pillars and components of digital transformation in information institutions in general and archival institutions in particular, by addressing a brief concept of archival institutions and defining digital transformation and its importance in archival institutions. We also addressed the concept of digital culture, its importance, and its components, and we highlight the basic steps for adopting digital culture in archival institutions. We conclude this research paper with a set of findings and recommendations.

Keywords: Digital culture, Digital transformation, Archival institutions

ملخص:

إن المؤسسات الأرشيفية تعيش حاليا تحديات كبيرة تطرحها الثورة الرقمية، حيث أن العالم في تسارع مستمر ولا ينتظر أحدا للحاق به إلا من عمل واجتهد لمواكبة هذه التطورات الحاصلة التي أبرزت لدينا كيان جديد نستطيع أن نسميه المجتمع الرقمي، حيث أن لمؤسسات الأرشيفية كمراكز معلومات تعتبر من أهم مراكز نشر الثقافة والمعرفة بين الأفراد منذ الأزل، سابقا كان لدينا حاسوب داخل مكتبة أما الآن فلدينا مكتبة داخل حاسوب، وهذا الأمر يستدعي التحلي بالمهارات الرقمية لكل من القائم على هذه المؤسسات والمستفيد منها، ومنه تهدف هذه الدراسة إلى تسليط الضوء على الثقافة الرقمية باعتبارها أحد أهم دعائم ومقومات التحويل الرقمي في مؤسسات المعلومات عامة والمؤسسات الأرشيفية خاصة وذلك بالتطرق إلى مفهوم وجيز للمؤسسات الأرشيفية وتعريف التحويل الرقمي وأهميته في المؤسسات الأرشيفية، وكذلك تطرقنا إلى مفهوم الثقافة الرقمية، أهميتها، مكوناتها، وأبرزنا الخطوات الأساسية لتبني الثقافة الرقمية في المؤسسات الأرشيفية. ونختتم هذه الورقة البحثية بمجموعة من النتائج والاقتراحات.

الكلمات المفتاحية: الثقافة الرقمية، التحويل الرقمي، المؤسسات الأرشيفية

Introduction:

Today, information has become the cornerstone and foundation upon which humans build a solid and sound intellectual base. Libraries and archives are considered the most important documentary institutions that play a vital role in providing information and knowledge to all segments of society. They also make members of society educated in all fields. The archival sector has recently witnessed clear and tangible developments in practices and services, from traditional to electronic, with archival institutions seeking through their services to create a generation that is intellectually and digitally aware and educated, given that we live in a world of rapid knowledge and technological growth.

Archival institutions are considered the fortress that protects the nation's memory from erosion and the beacon that lights its path to the future with a deep understanding and true awareness of its past.

Not long ago, no one could have predicted how our lifestyles today would revolve around mobile devices and the digital world. Technology has become so radically integrated into our daily lives that we cannot imagine life without it. Therefore, the ability to use these devices and digital technologies in a useful and effective manner will enable us to develop our professional capabilities in archival institutions and give us efficiency, quality, and accuracy in our work.

Digital technology has changed the way humans live, think, and behave. How can we use this to our advantage? We carry out the tasks of preserving archival documents and making them available to users, relying on these digital changes.

Therefore, based on the challenges and opportunities that digital technology poses to the work of archival institutions at various levels, I wanted to address the topic of “digital culture as a fundamental pillar of digital transformation in archival institutions” in this study. Accordingly, we pose the following question:

How can digital culture contribute to facilitating the digital transformation of archival institutions?

Study objectives

- Understand the concept of digital culture and its importance.
- Highlight digital culture and its role in the digital transformation of archival institutions.
- Understand the concept of digital transformation and its importance.
- Highlight the digital skills that archivists within archival institutions must possess in order to achieve digital transformation.
- Highlight the basic steps for building digital culture in archival institutions.
- Identify digital information services as a product of the adoption of digital culture in archival institutions.

1. Definition of archival institutions:

An archival institution can be defined as "an institution that receives and collects information containers resulting from human activity (whether within an organization, government agency, semi-governmental agency, or individually). This institution evaluates, organizes, preserves, and makes these containers available to users in the best manner and at the lowest cost, through the optimal and economical use of available resources and capabilities." They also serve as historical research institutions, as anyone who wants to study the past must refer to them. In this capacity, they constitute an information center, similar to other information systems such as libraries, documentation centers, and others. They are also the place where documents, regardless of their medium or format, are collected, They are then preserved and processed to ultimately be made available to visitors and researchers according to specific conditions and procedures. The objectives of archives are to collect and record archives from various sources, sort and process them, and then make them available for consultation (Kherfi, 2016, p. 51).

2. Digital transformation and its importance in archival institutions:

Before discussing the importance of digital transformation in archival institutions, I would like to briefly define digital transformation, as there are many concepts surrounding digital transformation. One of the most important and accurate definitions is that "digital transformation is a tremendous journey

of change that institutions are undergoing as a result of the emergence of new technologies that can effectively improve their social, economic, and other performance” (Yamaç KayaA, 2023).

Digital transformation has become an urgent need for all businesses and industries around the world, and meetings in various institutions are filled with talk about the need to take advantage of this development and completely rebuild systems and processes digitally to provide a smart environment that brings success to companies, businesses, and all institutions, regardless of the nature of their work and the services they provide, so that they can benefit from artificial intelligence, machine learning, and other services.

Therefore, digital transformation is no longer just an optional extra for institutions, but has become an absolute necessity to ensure survival, growth, and competitiveness. Adopting modern technologies alone is not enough; real transformation requires a comprehensive strategy based on solid foundations to achieve the desired goals. (Al-Majd, 2025) As the saying goes, if we create everything digital, then the digital in turn creates us (cardon.d, 2019) and forces us to keep up with it.

As for archival institutions, digital transformation is not just a process of transferring documents from physical shelves to digital servers, but rather a reimagining of the role of archives in society. It transforms the archival institution from a passive entity that preserves the past into a dynamic and influential actor that participates in the creation of knowledge, supports scientific research, and makes the nation's memory and heritage accessible to all.

3. Digital skills and digital transformation in archival institutions:

Before reviewing the necessary digital skills, I will address the concept of digital skills, which are "skills and knowledge that enable the optimal use of technological tools, both personally and professionally. These skills also enable individuals to enhance their employability, productivity, creativity, and professional flexibility. The importance of digital skills is growing significantly, with the World Economic Forum predicting that 42% of tasks will be automated by 2027 as a result of the application of artificial intelligence and other emerging

technologies. These changes require companies to have sufficient competencies capable of adapting to these new technologies, in addition to possessing the digital skills necessary to make the most of them (Sánchez, 2025). Archival institutions are not isolated from other institutions and companies and must catch up, especially in developing countries. Digital transformation requires new skills that go beyond traditional archival work, and these are the most important digital skills that I consider necessary in these archival institutions:

- Archivists and employees in archival institutions must have digital data management skills and website design and control skills, as these are essential for attracting users.
- They must have the skills to employ digitization by converting analog media into high-quality digital images, not to mention managing digital archives through digitization.
- The skill of controlling and managing the use of social networks.
- Digital communication skills via email or other available digital means.
- The skill of treating users well, responding quickly to them, and interacting with them while asking questions and addressing concerns remotely.
- The ability to adapt to sudden changes and use digital technology.
- The skill of digitally marketing the archives within archival institutions, as well as marketing the digital services they provide.
- Skill in using artificial intelligence in archives. This skill aims to enable archivists to be smart partners with technology, using it to improve their tasks and functions of processing, preserving, and making archival documents available with high efficiency.

4. digital culture:

4.1 What is meant by digital culture?

Digital culture refers to the behaviors, practices, and values that evolve from the use of digital technologies. Broadly speaking, these technologies include all technological means, devices, and applications, from smartphones and social media to digital collaboration tools, enterprise content management, cloud infrastructure, and software as a service, as well as the digital environment - such as the internet - that forms the basis of the modern digital world.

Digital culture is defined as “the skills and knowledge necessary to participate in the most important activities using information and communication technology, namely the use of computers and their tools, the retrieval, access, storage, production, and presentation of information, as well as communication and participation in collaborative networks via the Internet” (Nabti, 2012, p. 208).

Another definition of digital culture refers to it as "the values, beliefs, behaviors, and technologies that shape how people work and interact in a primarily digital environment. It encompasses a range of elements, including shared thinking, collaboration, innovation, and technology adoption. Unlike traditional organizational culture, digital culture focuses on leveraging technology to achieve business goals (Amr.okasha, 2023).

4.2 The importance of digital culture in keeping up with the times:

The importance of digital culture is clearly increasing in our societies today; it has become a key factor in how individuals communicate and interact with each other, as well as how they access information through various digital sources such as social media, streaming services, digital platforms, and the positive impact of digital culture on our daily lives. We cannot deny that it allows us to access information, communicate with others, and share our thoughts and opinions. social media, streaming services, and digital platforms. The positive impact of digital culture on our daily lives cannot be denied, as it allows us to stay connected with friends and family from all over the world.

Furthermore, digital culture can be considered a means for various institutions to reach their audiences and beneficiaries by understanding the importance of digital culture and leveraging its potential to increase their online presence. It is therefore not surprising that several global organizations have taken an interest in digital culture and are looking for ways to make the most of it, including archival institutions.

Digital culture can also help facilitate everything from the ready acquisition of new digital skills among team members to improving the digital environment

in which they work. A digital team that does not have a true digital culture is like a director who never goes to the cinema (Rowles, 2022).

We can therefore say that digital culture is the new language of the digital age we live in, and those who do not master it become isolated from our world.

4.3. Digital culture tools:

There are many tools specific to digital culture that contribute to keeping pace with the digital age in which we live. These tools are the nucleus of digital transformation, but their success depends on how they are used. Among the most important of these tools are digital libraries, which are organized collections of information resources and services that can be accessed via computer networks. These libraries are characterized by the fact that all or most of their holdings are available in digital format, whether in the form of text, images, audio recordings, video clips, or other media. There are also search engines, which are programs and systems that individuals use to search for topics and references they need via the Internet, with the information arranged in a specific order.

Specialized electronic databases are also considered one of the most important tools of digital culture. They are organized lists containing published sources of information, which are mostly articles and periodicals that provide researchers with guidelines on how to cite articles. In addition to the above, we find social media, which emerged with the advent of new communication technologies and the information revolution that has emerged significantly in recent times. These sites have brought about a major development in the lives of individuals, whether on a personal, political, or social level. (Ramadan, 2019, p. 184) Artificial intelligence is also considered one of the most important tools of digital culture, designed specifically to mimic human thinking, as artificial intelligence plays an increasingly important role in shaping and developing digital culture.

5. Adopting digital culture in archival institutions:

Digital culture is a key driver for the development of archival institutions, enabling them to perform their vital role in disseminating knowledge and information in the digital age. Adopting this culture requires strategic planning,

investment in infrastructure, and the development of archivists' skills in order to ensure the preservation of archival holdings and guarantee their secure access to users. When we talk about digital culture in archival institutions, we are referring to how to process, organize, and preserve the archival holdings they contain and how to access them using new technological mechanisms and relying on technology and its outputs. The latter facilitates the search for and evaluation of information by developing new, easy-to-use strategies for searching the databases of these institutions. Therefore, digital culture in archival institutions is linked to:

- The ability of archivists in the archival institution to use technology.
- The ability of archivists to build and maintain virtual relationships with users.
- The ability to access, evaluate, and make information available to users in the digital environment.

5.1. Reasons for adopting digital culture in archival institutions:

- 1- Keeping pace with various developments and technical and digital innovations in all fields.
- 2- Digital culture enables archival institutions to overcome geographical and temporal barriers and make their archives and services available to users at any time via the global network (the Internet).
- 3- There is an urgent need for information and the necessity to provide it in an easy and quick manner to meet the needs of users, which is what information institutions offer when they rely on technology.
- 4- Digital technology helps in processing, organizing, indexing, preserving, and archiving archival documents with high efficiency, which facilitates the search and retrieval process.
- 5- Digital culture provides a collaborative work environment among archivists in the institution, which is the main reason we adopt it in the archival sector.
- 6- Digital culture encourages interaction among archivists and allows them to express their opinions and create an impact in their work environment.

5.2. Steps to build a digital culture in archival institutions:

Adopting a digital culture is an essential part of the digital transformation of archival institutions. This does not mean simply acquiring tools and technology, but also includes a way of thinking, working, and taking full advantage of digital capabilities (David Romero, 06.2019). These are the basic steps for building a digital culture in archival institutions so that archivists can keep pace with the digital age:

- **Setting goals and communicating with archivists:**

Management at all levels of archival institutions plays a key role in building a digital culture. Management must communicate continuously and consistently with archivists to simplify its vision and progress in digital transformation projects and adopt an individual digital culture. Management must also set clear goals for digital transformation in language that everyone understands. Information about successful projects in the archival sector that have widely adopted change should be disseminated and praised, which will encourage archivists to approach digital transformation projects with enthusiasm. For example, examples can be given of global archival centers such as the French, Canadian, and British archives, among others, that have adopted digital transformation and relied on digital culture in doing so. As we know, if archivists willingly engage in the change process, there will be no resistance to change, and instead there will be rapid change. We must not forget the need to listen to their suggestions and comments and take them into consideration.

- **Building leadership:**

In order to build a digital culture, it is necessary to develop appropriate leadership capable of supporting this transformation. Studies have shown that digital transformation has been more successful and smoother when led by a competent leader whose leadership style is consistent with the values of digital culture. A digital manager is a leader who provides a clear vision and proactively participates in team problem solving as a coach or mentor. Competent digital leaders use fewer rules and rely on general guidelines. So-called “servant leadership” gives employees more freedom to learn from mistakes and encourages them to continue innovating. While encouraging the team to better manage itself toward digital transformation, it is important to monitor the team's progress by organizing regular progress meetings. Archival institutions need a highly competent and skilled leader to embrace digital culture and influence the

team so that they can make the archival institution's digital transformation project a success.

- **Archivists' participation in change:**

One of the most common problems that occur during the digital transformation of institutions is employee resistance to change and the inability of users to adapt to it. This is due to their lack of digital culture, and therefore, when implementing digital transformation, special attention must be paid to the methods of introducing new technologies to the institution, and it is important to identify archivists who are enthusiastic about using digital tools. The differences among archivists working in the archival institution and their personal characteristics make a decisive difference in change. It is important to recognize that the most successful digital culture stems from more diverse employees, as employees who are more flexible, self-organized, and innovative tend to perform better. Furthermore, they can be ambassadors of digital change by positively influencing other employees throughout the archival institution. Therefore, we are always looking for employees with distinctive and influential personalities, because attracting talent is not only based on their skills and qualifications, but also on their ability to think innovatively.

- **Monitoring progress and measuring success:**

The archival institution may strive to develop the digital culture of its archivists by holding regular and periodic meetings for archivists and work teams to update their work and listen to their opinions and suggestions, which makes them feel more responsible for the work and changes required of them. All archivists must also be kept informed of what is expected of them.

- **Providing the appropriate digital tools:**

Anyone who wants to implement a complete and successful digital culture must provide the appropriate tools. Archivists must also be given the opportunity to use digital tools that support and enhance their skills and competencies. It is important to provide training and workshops for archivists so that they can learn and understand the importance of adopting new digital values

and tools. Digital tools must also be integrated into the daily tasks of archivists to simplify them, such as the use of digital document management systems or online collaboration tools.

Implementing a digital culture in archival institutions can be a long-term process that requires diligence and informed decisions. If done correctly, this will lead to a more effective and successful archival institution with empowered and experienced archivists who are proficient in digital technology and have a high digital culture that enables them to keep pace with the digital age, giving them a strong sense of personal responsibility for the joint success of the archival institution.

6.Study findings and recommendations:

- Digital culture is considered the main driver of digital transformation and keeping pace with technological developments in archival institutions.
- Archival institutions no longer play the role of silent custodians of documents, but have become active institutions in knowledge building in the digital age.
- The absence of digital culture in any institution leads to employee resistance to change and digital transformation, and this applies to archival institutions at all levels .
- Archival institutions provide digital services that enable users to access and utilize their archival holdings easily and quickly.
- Archival institutions need a highly competent leader who contributes to building a digital culture and thereby facilitates digital transformation within these institutions.
- Providing the necessary digital tools and enabling employees to use them freely without pressure contributes to the successful adoption of a digital culture by individuals within various archival institutions.

*** I have a number of suggestions to enhance the content of this study**

- The need to conduct a comprehensive test to determine the current level of digital competence of archivists and identify knowledge gaps among them, which will facilitate the building of a digital culture within archival institutions of various types.
- The need to provide training programs and technical workshops that contribute to the acquisition of digital skills by archivists.

- Encouraging archivists to engage in self-training and providing the necessary resources for this.
- Cooperation between leading documentary institutions in digital transformation and the adoption of digital culture to facilitate access to the digital world for archival institutions.
- Building a digital culture in archival institutions is a long-term investment that requires continuous commitment and patience in the face of difficulties from archivists and officials.

7. Conclusion:

At the end of this research paper, I would like to say that we are entering a new world that digital technology is building and transforming. Therefore, it is important to have diverse and multidisciplinary knowledge to keep pace with this digital age. Digital culture is considered a fundamental pillar for all institutions and companies to achieve digital transformation.

Therefore, digital transformation in archival institutions is a comprehensive process that aims to integrate digital technologies into all practices and tasks necessary for collecting, processing, and preserving various archival holdings, in addition to the digital services provided. Digital culture plays a crucial role in the success of this transformation, so all archivists working in these institutions must possess the digital skills that enable them to build an individual digital culture that contributes to the success of their archival institution in easily entering the digital world.

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