



The Reality of the Digital Communication in the University scientific institutions

(A Case Study of the Official Website of M'Sila University)

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Abstract

The study aims at investigating the extent of the University of M'Sila's use of the digital technology by examining a sample of administrators and university professors who use the university's website as a digital tool. The research employed a combination of questionnaires and interviews to gather information. The study yielded the following results: the majority of participants spend less than an hour browsing the University of M'Sila's website, and most prefer using the French language. Their access to the site is mainly through search engines. Participants believe that the website has contributed to improving administrative performance and identified several challenges, with technical difficulties being the most significant. Addressing these challenges includes upgrading necessary tools and devices to enhance internet flow and connecting faculties and departments to the internet and internal networks.

Keyword. Reality, Communication, Digitization, Institution, Academic, University.

1. INTRODUCTION

Events rapidly unfolded and accelerated during the second half of the twentieth century in the field of communications and computers, with applications extending into all aspects of life. As the 1980s approached, computers began to dominate many industries.

The years that followed witnessed numerous developments, starting with the increased capabilities of computers. They were then interconnected to form networks through which programs could be accessed, and data and information exchanged. Remote communication technologies played a crucial role in expanding the scope of networks, making connections more extensive and interlinked among many networks.

Digital technology is considered the pinnacle of advancement in the field of information and communication technology, reflecting a new era in human life. If the industrial revolution occurred due to the invention of machines, modern communication methods and remote computers have ushered in the information technology revolution.

Universities, as institutions for knowledge and information production, play a central role in society by allocating material and human resources. They are surrounded by legal care that continually activates productivity, making it essential because societal development is impossible without qualified and specialized frameworks, effective scientific research, and socially capable institutions. The strength of societies can be measured by the output of their scientific institutions, with the university at the forefront, either directly or indirectly. This means that it either directly conducts scientific research or by training and graduating researchers who lead in other areas within different institutions.

The management of the university institution is the cornerstone of scientific practice and its results. It requires not only following common scientific steps and

procedures but also scientific administrative management. This principle applies to scientific practice as a social activity subject to specific historical and intellectual conditions. This requires independence in administrative creativity within the university, not isolating the university or Algerian society from the world and its variables. There is no interest in choosing isolation under any pretext. On the contrary, there is a demand for more openness to the achievements of science to enable its graduates and society to achieve an international level, allowing them to keep pace with the world's scientific and human achievements.

From this perspective, the Ministry of Higher Education and Scientific Research has aimed to equip all university institutions as a contemporary model for communication and information technology. This is to enhance the active role they play in facilitating the tasks of the university institution. This role highlights the socio-technical importance in analyzing digital communication systems and their means as a contemporary model for communication and information technology in the university institution. Its significance lies in improving administrative performance, organizing it, and facilitating the exchange of information among various users.

2. Problematic of the Study:

The Algerian university institution is considered a sub-framework linked to both the sub-frameworks of other social organizations and the larger frameworks existing in society. It serves as the external environment that affects the internal and external operations of the university and is influenced both negatively and positively. All its organizational goals and strategies aim to spread knowledge through education and training to provide communities with professionals and specialists. The production of knowledge is achieved through scientific research in the fields of humanities and applied sciences.

Aligning with global modern changes, Algerian society seeks development in the university institution, whether at the organizational and administrative levels or in

educational patterns and scientific research. This is achieved by connecting all universities, their faculties, and departments through the internet and internal networks, providing them with the necessary means for that purpose. This evolution has created a communication reality different from what it was before. This technology has contributed to the advancement of the higher education and scientific research sector, becoming a priority that the Algerian government cannot overlook. It has opened the way to acquire modern and advanced equipment. Universities have worked on creating their own websites to improve communication and administrative performance, providing an opportunity for the Algerian government to enhance the university sector.

According to the aforementioned, our study sheds light on the current use of digital communication technologies at the University of Mohamed Boudiaf in M'sila. Based on this, our research problem revolves around the following: **To what extent does M'sila university administration use the digital communication technology?**

This problematic leads to several questions, such as:

- What is the reality of the digital communication in M'sila university administration?
- What impact does this technology have on the administrative performance of M'sila University?
- What shortcomings does the digital communication experience at the level of the M'sila university administration?
- What are the tools for improving this technology?

3. Reasons for Choosing the Subject:

- The Algerian administration in general, and the university sector in particular, has witnessed a new type of communication. We will delve into the key aspects related to this type of communication, especially since there is insufficient research on this topic.
- The advantage introduced by modern communication technologies to the university necessitates an exploration of the extent to which this technology contributes to the development of the university.

4. Study Objectives:

- Understanding the significance of digital communication at Mohamed Boudiaf University in M'sila and how to effectively leverage it.
- Clarifying how to employ and enhance modern digital communication technologies to efficiently reach audiences in a manner that suits their usage patterns.
- Introducing the latest technological devices available at Mohamed Boudiaf University in M'sila.

5. Adjusting the Study Terminologies :

1. **Digitization:** It is a system for encoding various pieces of information into letters or numbers. The digital device displays the measured quantity in the form of numbers, such as a digital watch that shows the time through printed numeric characters. Therefore, the English expression "digital" is equivalent to the French expression "numérique." In the field of communication technology, digital products, such as the internet, are counterparts to analog products. (Ibraqan, 2004, p. 216)

2. **Digital Communication Technology:** It is a modern technical approach to transmitting communication signals using contemporary communication means such as the internet, satellites, etc. It constitutes a set of equipment and media discovered or invented by humans to collect, generate, broadcast, transmit, receive, and display communication information among societies and individuals. (Mahfoud, 2005, p. 9)

Procedurally: Various modern communication means used by the administration of Mohamed Boudiaf University, mainly represented by the official website of the University of M'sila on the internet.

3. University Management: Abdel-Rahman defines it as "one of the social institutions or organizations that contribute to the overall development of society. It has various functions, including the educational process, increasing knowledge, conducting various research to contribute to solving problems of the local community where it exists. The university is considered an academic and scientific institution that provides all social, economic, and industrial institutions with all the specializations and human resources necessary for comprehensive development in society. (Abdel-Rahman, 2000, p. 25)

Procedurally: The management of the University of M'sila, which includes all administrative bodies affiliated with the university, represented by the university presidency and the administrations of the colleges and institutes within the university.

4. Official University Website: There are several definitions for the official website of the university, as an educational website. Professors Al-Mousa and Al-Mubarak define it as "a method of teaching using the internet and its various media, including sound, image, graphics, search mechanisms, and electronic libraries from a distance. The purpose is to use the website to convey information to the user in the shortest time and with the least effort and the most benefit." (Al-Mousa, 2005, p. 113)

Procedurally: It is that group of web pages on the internet related to the university, linked with text command links to form a headquarters that university professors can visit and benefit from.

5. Usage: What an individual actually uses from the information, meaning the mental utilization of the needed information. In the context of the internet, usage has two concepts: general and specific. (Belabbas, 2006, p. 7)

Procedurally: Browsing in its various types, patterns, and motivations. It refers to the actions that university professors take to connect to the university's website and their interaction with it.

6. Study Type and Method Used:

This study falls under the category of descriptive studies, aiming to provide a detailed and comprehensive description of the characteristics and conditions of the study's problem. It relies on collecting, analyzing, and interpreting facts to derive results and implications that lead to instructions regarding the studied phenomenon. Descriptive research, in general, focuses on describing specific phenomena, events, or things by collecting facts, information, and observations related to them. The goal is to create a realistic depiction, and these studies go beyond mere description and diagnosis. They are concerned with reporting what things or phenomena should be according to the research focus (Al-Fawal, 2002, p. 35).

In this study, a survey methodology was adopted to explore the scientific heritage related to the study's topic, particularly concerning the electronic platform of the University of M'sila as a form of digital communication and the extent to which the university professors utilize it. The survey targeted a sample of 50 professors, and the survey methodology is defined as a "general study of a phenomenon existing in a specific group, in a specific place, and at the present time" (Al-Zaidan, 1983, p. 117).

7. What is Digital Communication?

7.1. Definition of Digital Communication:

The definition of digital communication primarily revolves around the use of digital systems and their innovations, considering them the only and fundamental means of communication between parties. This concept is closely related to the idea of communication through the computer, computer-assisted communication, or computer-based communication. These concepts emphasize the role of the computer in the communication process (Abdel-Majeed, 2004, p. 103). At the same time,

communication in this context falls within the broader framework of the concept of communication, including its elements, forms, and models. Ultimately, it is a human or interpersonal communication to achieve specific goals, characterized by all the qualities of human communication and carried out through various sub-processes. These processes are influenced by various social, psychological, and linguistic factors addressed by psychologists, sociologists, and linguists who have provided numerous models explaining human communication, its processes, and relationships.

On the other hand, the assessment of the medium's usage cannot be measured solely. Thus, we can consider it approaching mass communication, which relies on mechanical and electronic means in producing and disseminating communicative messages. Digital systems enable personal and collective communication alongside mass communication, even if not face-to-face. This is unlike mass communication, which primarily relies on immediate personal communication methods such as telephones and telegrams, and later, digital networks.

Thus, the definition of digital communication can be articulated as follows: "The social process in which communication takes place remotely between parties exchanging roles in broadcasting and receiving various communicative messages through digital systems and their means to achieve specific goals. It also refers to the shift from an analog-based information handling approach to a digital one, involving the digitization of information. This means converting information (text, image, or sound) into digitized electrical waves, facilitating its transmission, storage, processing, and compression.

The term 'digital' refers to the binary states of operation, on/off. Information is expressed in the form of a series of on/off signals, where all letters, symbols, numbers, images, drawings, and sounds are represented as "zeroes and ones." (Abdel-Majeed, 2004, p. 104).

7.2. Digital Communication Determinants:

1. If traditional human communication is described as a process that connects its elements in a relationship with each other, digital communication goes beyond that, as relationships exist not only among the elements of the process but also among the elements of the digital systems that continuously facilitate and evolve communication.
2. Network communication performs social functions and roles that support the social aspect and social requirements of digital communication.
3. Communication between individuals is considered distance communication, regardless of the level of communication, whether it is bilateral or collective, and regardless of the accompanying technologies that aim to bring parties together through writing, sound, or images.
4. While communication is remote, the innovations in digital systems have provided face-to-face communication components such as circular communication, exchange of communication roles, and reinforcement of their functions.
5. Digital systems and their innovations are essential for achieving communication and its functions, and wired and wireless communication is not effective as long as it does not rely on digital systems.
6. The elements of communication in this concept do not differ from the known elements of communication in its traditional forms, but they emphasize the necessity of having digital encoding devices in transmission and reception.
7. Reading, writing, and computer literacy are considered essential skills for the parties involved in digital communication, given the requirements of dealing with computer units and the nature of digital messages that require written processes for editing, sending, and receiving. (Al-Mousa, 2005, p. 117)

7.3. Characteristics and Advantages of the Digital Communication:

Among these characteristics, we find the following: (Makawi & El-Sayed, 200, p. 107)

1. **Interactivity:** The communicators exchange roles, and they are referred to as participants rather than sources. Communication becomes interactive, with a two-way exchange between the sender and receivers, and the audience becomes actively involved in the communication process, influencing its elements.
2. **Fragmentation:** Refers to the multitude of messages that can be chosen according to the preferences of individuals or small groups, instead of unifying the messages.
3. **Asynchrony:** Means the ability to send and receive messages at a convenient time for the communication user, regardless of the recipient's presence at a specific time.
4. **Mobility and Flexibility:** New media can be moved anywhere, such as personal computers, mobile phones, and portable video cameras.
5. **Convertibility:** Digital communication allows the conversion of audible signals into printed or visual messages and vice versa.
6. **Universality:** The communication environment has become global, surpassing the barriers of time, place, and control.
7. **Pervasiveness:** Indicates the transformation of new media from mere luxury and additions to essential and functional tools. This is evident in the widespread use of mobile phones.
8. **Diversity:** With the evolution of digital innovations in communication and their multiplicity, coupled with increased production and storage capabilities, there is diversity in content and communication forms, providing recipients with more choices to meet their communication needs and motivations.
9. **Integration:** The Internet represents a communicative umbrella that brings together various communication systems, digital media, content in various forms, and functions

into one system, providing recipients with multiple options within an integrated framework.

10. Individuality and Fragmentation: Digital communication enhances the value and distinction of the individual, providing greater freedom of choice for communicators. It elevates the significance of individuality, maintaining the secrecy of communication and its privacy. Communicators have control over processing data, presenting it, and benefiting from it without conflicting with legal rights related to intellectual property, data usage, and information.

8. Electronic Websites: Between Technical and Academic Importance

8.1. Electronic Website Definition:

The definition of the electronic website has sparked significant controversy in legal opinions, with varying definitions provided. This difference arises from the perspective through which the electronic website is defined, considering the intellectual property rights it encompasses. Additionally, its crucial role in the overall development of international trade, especially electronic trade, contributes significantly to the exchange of goods and services and the remote identification of them (Salama, 2005, p. 50).

The electronic website is considered to consist of two parts: a static part and a variable part. The static part always includes the segment "WWW," indicating the protocol used and specifying that the site exists on the World Wide Web (WWW) (Hejjazy, 2006, p. 288). This part refers to all projects, companies, and individuals who own websites on the network. As for the variable part, which follows this static part, it is the part that distinguishes the project from others, and it is called the electronic website's Domain Name.

8.2. The Technical Significance of the Electronic Websites:

Using a website on the Internet is technically easy for individuals and businesses. The evolution from the old numeric address, which took the form of an IP (Internet Protocol) address composed of numbers challenging to store or remember, led to the development of the electronic website system. This system enables a simple and easy connection to the network by using a set of letters.

Therefore, replacing complex numbers with letters that directly represent the name of the business or some of its components encouraged Internet users to visit project-specific websites and benefit from the products and services they offer. For example, the address www.wipo.net points to the website of the World Intellectual Property Organization, providing users with an easy-to-remember and user-friendly way to access the organization's site instead of dealing with a set of difficult-to-recall numbers. (Abdallah, 2008, p. 188)

9. The Reality of Using the M'sila University Digital Website

9.1. The University's Digital website

The University of Msila website is considered one of the most important official university websites at the national level. It serves as a gateway to a group of websites, especially after its modification in 2012. The University of Msila website consists of 7 sections, which are: (University Website, 2022, <http://www.univ-msila.dz>)

1. Home Page: This is the website interface containing two dynamic windows. The upper one displays the latest updates, conferences, and activities, while the lower one includes four links. The first is for the central library, the second for SNDL, the third focuses on training, and the fourth is dedicated to announcements. Additionally, there are seven fixed windows, three of which are for downloading various files related to the university and conferences. There's also a window for the university's email space, one for distance learning, and another for televised education.

2. **Introduction Section:** This section provides information about the University of Msila, the personality of Mohamed Boudiaf, and the fortress of Bani Hammad.
3. **Administration Section:** This section highlights the most important administrations within the University of Msila and its various departments.
4. **Colleges Section:** It includes the colleges present at the University of Msila and the university pole, with each college having its own dedicated site linked to the official website of the University of Msila.
5. **Institutes Section:** It includes the Institute of Urban Techniques Management and the Institute of Sciences and Techniques of Physical and Sports Activities.
6. **Research Section:** This section contains research laboratories, research projects, scientific events, and scientific theses and publications.
7. **Journals Section:** It includes the journals published by the University of Msila or its colleges.

The website also features a ticker for the latest updates, along with links to multiple databases, including:

1. **E-Learning Platform (Plateforme de cours UMB M'sila):** This platform is dedicated to delivering lessons, assignments, and lectures from professors to students. Link to the platform <http://viruelcampus.univ-msila.dz/moodle/>
2. **National Portal for Electronic Documentation (SNDL):** This portal provides various databases covering all specialties and fields. Link to SNDL <http://www.sndl.cerist.dz/>

9.3. The Reality of the Digital Use of the University Website from the Point of View of the interactants

Through the analysis of the data, we have reached several conclusions, including:

- Digital communication is a modern technology primarily represented by the internet and electronic websites. The University of M'sila utilizes this technology in both internal and external communication processes, as well as in administrative tasks.
- Digital communication is considered a priority that cannot be dispensed with in the university. It holds significant importance in facilitating and improving administrative work, opening avenues for communication between the university and its internal and external audience.
- Digital communication has a profound impact on administrative work at the university through advancements that replace analog communication, such as eliminating cables and technical malfunctions. This technology has also contributed to maintaining the confidentiality of information by providing secure systems.
- Digital communication has the ability to preserve the confidentiality of information at the university by storing and archiving it in digital format (1,0), unlike analog communication.
- The most important services provided by digital technology at the university include the flexibility and comprehensiveness of the digital network, allowing data transmission in the form of texts, voices, and images with a high level of accuracy.
- Through digital receiving and transmitting devices, communication between the university and its audience can be enhanced, increasing interactivity.
- However, this technology faces some shortcomings at the University of M'sila, hindering its development and widespread use by the university community. Most of these shortcomings are technical, such as slow internet speed, outdated cables, database

shortages, and the lack of universal adoption of digital technology across all departments and colleges at the University of M'sila.

- To improve this technology and make it more effective than it is now, officials in this sector should renew cables, connect the internet and internal networks to all departments and colleges, and increase internet speed to facilitate the communication process.

10. Conclusion

From what has been presented, we believe that digitization is not an option but rather a technological necessity. We cannot progress without leveraging the offerings of advanced high-definition technologies, capable of placing an institution on the scale of a university like M'sila at the forefront of the required professionalism and expertise. Digitization provides many conditions for successful communication and administration. It also helps the university avoid the need to acquire numerous outdated facilities, responding to various new media that can be used for internal and external communication, such as the internet, primarily represented by the official website of the university on the World Wide Web.

Therefore, digital technology will contribute to saving time, a crucial aspect in higher education and scientific research that focuses primarily on the speed factor in disseminating information. In this way, the University of M'sila has been able to leverage digital technology and open up to its official website, allowing communication with the university and access to information.

11. Bibliography

1. Ahmed Abdel Karim Salama (2005), Consumer Protection in International Electronic Contracts, According to the Methods of Private International Law, research presented within the proceedings of the First Scientific Conference on the Legal Aspects of Electronic Operations, Police Academy, Dubai.

2. Al-Zaidan Muhammad Omar (1983), Scientific Research, Its Methods and Techniques, Dar Al-Shorouk for Publishing, Distribution and Printing, Jeddah, Saudi Arabia.
3. Al-Mousa Abdullah (2005), E-learning Foundations and Applications, Data Network Foundation, Riyadh.
4. Hejjazy Suhair (1998), Introduction to Computer and Network Technology, Cairo.
5. Hassan Imad Makawi , Laila Hussein El-Sayed (2006), Communication and its Contemporary Theories, Egyptian Lebanese House, 4th edition, Cairo.
6. Mohamed Abdel-Majeed, (2004), Media Theories and Influence Trends, World of Books, 03rd edition, Cairo.
7. Mohamed Mahfoud (2005), Communication Technology: A Study in Theoretical and Scientific Dimensions, University Knowledge House, Alexandria.
8. Mahmoud Ibraqan (2004): Al-Mubraq Encyclopedic Dictionary of Media and Communication, Arabic-French, Publications of the Supreme Council of the Arabic Language, Algeria.
9. Saleh Muhammad Al-Fawal (2002), Research Methods in the Social Sciences, Gharib Library, Cairo.
10. Abdelhamid Belabbas, "Availability and Use of Electronic Information Resources," a study of the use of information sources by graduate students at the university library, Mohamed Boudiaf, a thesis for obtaining a master's degree, Department of Library Science and Documentation, University of Constantine, Algeria, 2005/2006.
11. Abdel-Rahman Abdallah (2000): Studies in Sociology, Dar al-Nahda al-Arabiya, 2nd edition, Lebanon.
12. Abdallah Abdallah (2008), Legal Protection of Property Rights on the Internet, New University House, Alexandria.