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From classic communication to online communication: Identifying online communication tools

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Abstract

The emergence of the internet and digital technologies has facilitated the transition from classic communication to online communication. This shift has significantly expanded the possibilities of online communication. In this article, we will explore the development of a variety of online communication tools, such as synchronous and asynchronous online communication tools. These online communication tools support various types of communication. Ultimately, we will present how online communication offers new opportunities while requiring constant vigilance to maximize its benefits.

Keywords: Classic communication; Online communication; Types of communication; Online communication tools

1. Introduction

Communication plays a fundamental role in our daily interactions, whether personal, professional or social. Understanding the different types of communication and the online communication tools available can greatly enhance our ability to convey information effectively and facilitate clear and precise communication. We'll also look at the online communication tools used, focusing on the correspondence between different types of communication and the appropriate online communication tools.

The advent of the digital age has revolutionized the way individuals, companies, and organizations communicate. This transition has been fueled by the development of the Internet and associated technologies, which have opened the door to a wide range of online communication tools and platforms. The shift from classic to online communication has attracted a great deal of interest in both the academic and professional worlds. This transformation has been propelled by the rapid emergence of new information and communication technologies (ICT), creating an ever-changing communications landscape.

The transition to online communication is heralding profound transformations in the very essence of communication, extending far beyond the mere channels employed. We find ourselves now immersed in a new epoch where interaction, engagement, and collaboration lie at the core of our communications, thanks to the advent of social networks, messaging applications, blogs, podcasts, and a myriad of other digital platforms. Traditional forms of communication, predominantly reliant on face-to-face interactions, telephone conversations, and postal exchanges, have gradually yielded to the realm of online communication. The latter leverages an array of digital tools and internet-based platforms

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to facilitate the exchange of information. This paradigm shift has had a substantial impact on how individuals communicate, collaborate, acquire knowledge, and engage with the world around them.

The main aim of this article is to analyze in detail this transition from classic to online communication. We will take a close look at the online communication tools that have emerged and evolved over time, highlighting their crucial role in reconfiguring the communication landscape.

Types of communication play an essential role in the way we transmit information, form relationships and interact with others. Each type of communication has its own dynamism and offers unique possibilities for expressing our thoughts, sharing our emotions and influencing our audience. Online communication tools enable real-time interaction between teachers and learners, providing a faster and more effective means of teaching and learning. Online communication tools include instant messaging, forums, chat rooms, e-mail, blogs, wikis, webinars and course management systems. These online communication tools offer a variety of possibilities for fostering dialogue and collaboration between teachers, learners and other stakeholders. [1].

In a world increasingly interconnected and dependent on digital technologies, understanding these online communication tools is essential for researchers, communication professionals, decision-makers and anyone wishing to navigate this environment effectively. Through this in-depth exploration, our aim is to lay the foundations for a more comprehensive understanding of online communication, its implications and its potential to shape our communication future.

2. Classic communication

To begin our research, we must first define communication, which is not easy to define [2]. Scientists believe that the verb "to communicate" is well established in common dictionaries and therefore not easy to grasp. Indeed, it is one of the most misused terms in the English language"[3] Researchers have made several attempts to define transmission, but establishing a single definition has proved impossible and probably unsuccessful.

Communication is often perceived as a process in which a sender transmits a message to a receiver through various channels. This classic view of communication is based on a mechanistic approach, which has its roots in organization theory. Classical authors such as Taylor, Fayol and Weber compared the organization to a machine, while neo-classical thinkers such as Simon and Mintzberg used more sophisticated metaphors such as the brain or configuration to describe the organization [4;5].

Communication is an evolving discipline [6]. However, defining communication is no easy task [7]. In 1976, Dance and Larson identified 126 definitions of communication in their book "The Functions of Human Communication: A Theoretical Approach" [2]. Since the publication of this article, Trenholm states that communication researchers continue to add definitions to Dance and Larson's list. [8;2]. However, despite researchers' attempts to define communication, Littlejohn and Foss noted that "establishing a single definition has proved impossible" [7].

Classic communication refers to the classic modes of communication that existed before the emergence of modern communication technologies such as the Internet and digital media. In this context, classical communication relies primarily on non-digital and non-electronic communication methods and channels. This can include such forms of communication as face-to-face verbal communication, telephone calls, written communication (letters or e-mails), printed publications, traditional media such as print, radio, and television, as well as other forms of analog communication. The purpose of communication can vary depending on the context and the stakeholders involved. In general, however, the aim of communication is to convey information, ideas, or emotions from one person or organization to another in a clear, effective, and understandable way.

Recognizing the challenges inherent in identifying a single, universally accepted definition of communication, this article will draw on human communication research and consider communication as a "process". Tubbs and Moss state that "since human communication is an intangible and constantly evolving process, many people find it useful to use a tangible model to describe this process" [9].

3. Online communication

Online communication is a broad notion that includes all procedures, customs, and exchanges carried out via digital networks, primarily the Internet, and mediated by information and communication technologies (ICT). This type of

communication encompasses a wide range of mediums, including text and image sharing on social media platforms, as well as real-time conversations using instant messaging, video conferencing, forums, blogs, e-mail, and several other digital tools.

It is distinguished by its capacity to bridge geographical and temporal boundaries, enabling people to interact synchronously and asynchronously whether they are nearby or spread all over the world. Online communication encourages the development of social connections, information sharing, knowledge co-creation, collaboration, self-expression, and civic involvement. Online communication is influenced by cultural, economic, political, and technological aspects in addition to being a socio-technical phenomenon that is constantly changing.

Online communication involves a complex process of encoding and decoding, where a message is encoded by the sender using signs, symbols or language, which is then decoded by the receiver to extract meaning. However, it is important to note that communication is not limited to words, but also includes tone of voice, facial expressions, gestures and other non-verbal elements that enrich and refine the message. Among new technologies, the Internet and websites are one of the fastest and most effective means of communication compared with traditional methods. Internet-based online communication can transfer information synchronously or asynchronously [10].

Overall, online communication represents an important part of contemporary society, redefining the way we connect, share, collaborate, learn and engage in an ever-changing digital environment. It offers considerable opportunities, but also presents complex challenges that require in-depth understanding and ongoing reflection to navigate this new communications landscape effectively and ethically.

4. Types of communication

Communication is a fundamental aspect of human interaction, and there are various types of communication methods to convey messages and information:

- **Interpersonal communication:** is a complex and dynamic process that plays an essential role in our daily interactions. According to academic research, interpersonal communication involves the exchange of information, thoughts, emotions and meanings between two or more people [11]. It is characterized by direct face-to-face interactions in which individuals act as senders and receivers in the process of communicating with each other [12]. Feedback or feedback also plays an essential role in interpersonal communication, enabling participants to adapt and better understand the information exchanged [13]. However, it should be noted that interpersonal communication can be affected by various factors such as noise or distractions, the communication channel used and the social and cultural context in which the communication takes place [14]. Ultimately, interpersonal communication fosters the development of relationships, the resolution of conflicts and the building of mutual understanding between individuals.
- **Written communication:** is a form of communication that involves the use of written words and symbols to convey information, ideas and messages. Academic research shows that written communication plays a vital role in business, education, technology and many other fields [15]. However, it is important to recognize that written communication can be influenced by factors such as word choice, sentence structure, grammar and punctuation, all of which can affect the way people understand and interpret information. readers [15]. Therefore, it is crucial to develop effective written communication skills to ensure that messages are conveyed clearly and accurately [16] [17].
- **Oral communication:** refers to the exchange of information, ideas and messages through spoken language, which plays an essential role in daily personal and professional life. It enables us to disseminate knowledge, share experiences, influence others and strengthen relationships. Research also highlights the importance of specific skills, such as active listening, articulation, body language awareness and the ability to adapt to different communication situations. Furthermore, oral communication is often used in fields such as business, education, politics and the media to help convey information persuasively. In short, oral communication is the basic way for people to communicate and share information effectively and meaningfully.
- **Mass communication:** Before we can assess the future of mass communication, we first need to define what we're talking about, which is much more difficult than it might at first appear. Mass communication means different things to different people. For some, the central concept lies in the first word, "quality". In other words, the mass nature of mass communication sets it apart from other forms of communication throughout human history, as it enables communicators to reach larger, geographically dispersed audiences. This refers to the dissemination of information, messages and content to large audiences, usually via mass media such as news, television, radio, the Internet and social networks. For others, mass communication is an oxymoron. These

people tend to focus on the second word, communication, because the traditional definition of communication is based on the idea of exchange, and because mass communication technology does not (until recently) enable the exchange of information, and only allows information to circulate. According to this point of view, true mass dissemination is impossible. However, most of us regard mass communication in one or more of three ways: as a set of media institutions, as a social problem or as a field of academic research [18].

- **Group communication:** can be defined as the process of exchanging information, ideas and feelings between group members. It involves the transmission and reception of information between members of a group with the aim of sharing information, making decisions, solving problems or achieving a common goal. Group communication is a method of providing multipoint-to-multipoint communication by organizing processes into groups. A group is a group of processes that are members of it. For example, one group might be made up of users playing an online game. Another group might be the participants in a multimedia conference. Each group is associated with a logical communication process name. Group members send messages on behalf of the group; the group communication service forwards the message to the team member [19].
- **Verbal communication:** can be defined as the exchange of information and ideas through spoken language. It's a form of communication that uses spoken language to convey information and connect with others. Verbal communication is one of the main modes of communication used by humans and plays an essential role in our daily lives, whether in informal conversations, formal presentations, business meetings or even social interactions.

Verbal communication is made up of several key elements:

- Words and phrases: Words are the basic units of verbal communication. They have specific meanings and are organized into sentences and sounds to form a coherent message.
- Syntax: Syntax deals with the grammatical structure of sentences and the way words express ideas. Syntactic rules vary from language to language.
- Semantics: Semantics refers to the meaning of words and sentences. It examines how words are related to concepts and how these associations affect the understanding and interpretation of information.
- Pragmatics: Pragmatics deals with the use of language in a particular context, and how context, speaker intent and social expectations shape the meaning of a message.
- Tone: Tone, which includes intonation, rhythm, volume and accent, adds an extra dimension to verbal communication by conveying emotional nuance and intention.
- Body language: While verbal communication is based on words, body language, such as gestures, facial expressions, posture and movement, can accompany and reinforce spoken messages.

Non-verbal communication: is often more subtle and effective than verbal communication, and conveys more meaning than words. For example, perhaps a smile expresses our feelings more easily than words. Silent speech is very important in people's daily interactions, and affects their chances of success or failure in personal and professional social interactions. In this regard, numerous studies have been conducted regarding the role of non-verbal communication on the educational performance of University of Agriculture, Science and Natural Resources faculty members; the results of the study show that there is a significant relationship between non-verbal communication skills and the academic performance of University of Agriculture, Science and Natural Resources faculty members positive relationship [20]. Most information is conveyed through a complex combination of appearance, posture, body movements, looks and facial expressions. On the other hand, the effect of most body language is below the recipient's awareness, i.e. the recipient is deeply affected by the problem without realizing it. Consequently, a person capable of using these skills has the potential to guide others in a particular direction towards a goal, and it's for this reason that most human interactions involve non-verbal communication. Body language can communicate people's attitudes and feelings to others, in many cases even more effectively than verbal messages [21].

Visual communication: refers to the exchange of information, ideas and messages through visual elements such as images, graphics, symbols, colors and layout. It involves the use of visual media to convey a message clearly, concisely and powerfully [22].

- In the narrow sense: any form of human communication that generates and transmits information in the form of images (i.e., in the form of so-called visual and graphic symbols).
- In the broadest sense: any form of human communication that uses the eyes (visual perception) to convey information...

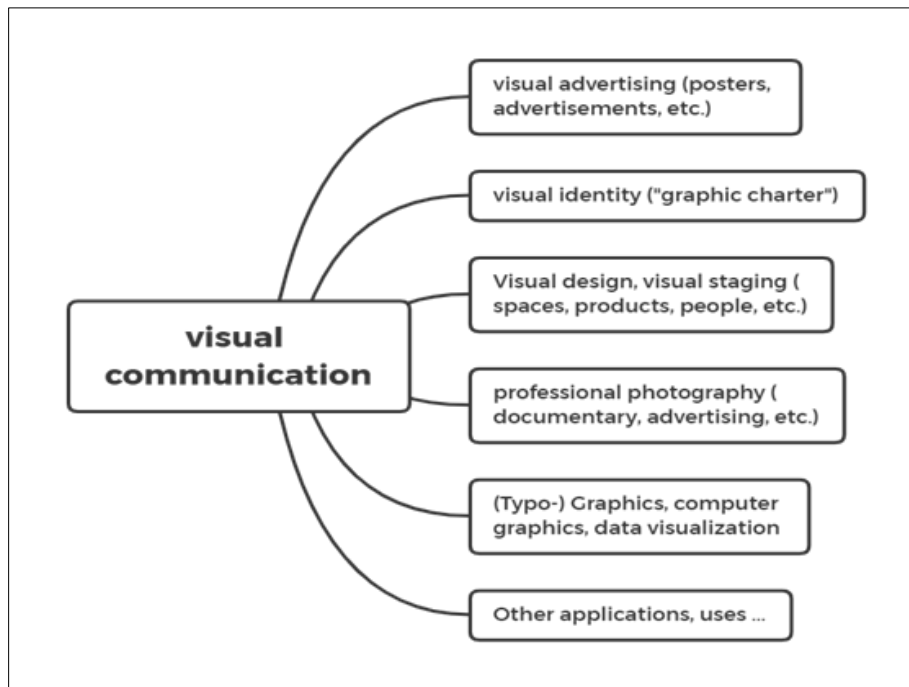Visual communication in professional and advertising communications:

Figure 1 Diagram of visual communication in professional and advertising communications [22]

5. Communication players

Depending on the particular context, communication actors may differ, however the following is a generic list of typical communication actors:

- **Sender:** The sender is the person, organization, or entity that sends the message. He or she is responsible for initiating and transmitting the information or ideas to the recipients.
- **Receiver:** Receivers are individuals or groups who receive information. This may be an individual, a target audience, a specific recipient, or a wider public.
- **Media:** media refers to the channel or medium used to convey information. This can include traditional media such as print, television, and radio, as well as digital media such as websites and social networks.
- **Communication channel:** a communication channel is a specific path used to transport a message from a sender to a receiver. This can include oral channels such as conversations, presentations, and speeches and written channels such as documents, reports, letters, etc.
- **Audience:** an audience is the group of people for whom a message is intended. These people may be individuals, consumers, employees, customers, learners, community members, or other specified groups.
- **Mediator:** A mediator can be a person or entity that facilitates communication between a sender and receiver. This may include interpreters, translators, communications managers, coordinators, etc.
- **Feedback:** Feedback indicates the receiver's response or feedback to the sender after receiving the message. This lets the sender know whether the message has been understood, accepted, or needs to be adjusted.

6. Comparative study of classic communication and online communication

Communication is an important part of modern life, and over the years it has evolved from classic communication to online communication. This comparative study aims to explore the main differences between these two modes of communication.

Table 1 Comparative study of classic communication and online communication

Aspect	Classic communication	Online Communication
Definition	Classic communication methods before the advent of the Internet and ICT.	Communication mediated by digital technology, mainly via the Internet.
Media and channels	Television, radio, print, face-to-face communication, etc.	Social networks, e-mail, blogs, videoconferencing, etc.
Interactivity	Generally one-way, with little real-time interaction.	highly interactive, with real-time conversations, comments and reactions.
Geographic scope	Generally limited by geography (local or national).	Global in scope, reaching an international audience.
Schedule and flexibility	Often linked to a fixed schedule (TV program, morning news).	Available 24h/24 and 7d/7, offering flexible hours.
Costs	This can be costly in terms of production and distribution.	Often cheaper in terms of production and distribution.
Credibility	Often considered credible (traditional newspapers).	Credibility may vary due to misinformation.
Face-to-face interaction	Especially in face-to-face discussions.	Unless online communication is used to organize a face-to-face meeting.
Real-time reactions	Public response was limited and often delayed.	Frequent and instantaneous reactions such as likes and comments.
Information distribution	Generally, relies on traditional media and publishers.	Promote through virality, instant sharing and user-generated content.
Measurability	It can be difficult to measure accurately in real time.	Audience engagement, click-through rates, etc. can often be accurately measured.

Online communication offers several advantages over classic communication. It's faster, easier to access, and allows you to interact with people all over the world. However, classic communication retains its value in situations that require face-to-face interaction or formal communication such as formal letters.

7. Online communication tools

Overall, this section looks at some of the synchronous and asynchronous communication tools that can be used to create a complete and rich learning experience [1]. Online communication tools refer to the various software, applications and platforms used to facilitate remote communication. They enable people to communicate, collaborate and exchange information in real time, regardless of their geographical location.

7.1. Synchronous online communication tools

Synchronous communication tools are means or platforms that facilitate real-time interaction between users. They enable users to communicate instantly by exchanging messages, information or files, and to take part in live audio or video conversations. These tools enable participants to interact simultaneously, even if they are in different locations, thanks to a communication model known as "simultaneous-distant". Skillful use of synchronous communication, both in the form of video and chat, can rapidly improve the communication skills of learners and teachers alike. The main motivation is often the possibility of communicating on subjects of interest in the target language [23;24]. Internet networks offer learners a large number of sites, video conferences and chats on totally different subjects. Here are some of the most commonly used synchronous online communication tools:

- **Videoconferencing:** A videoconferencing tool refers to software or a platform that enables users to participate in online meetings, conferences or discussions using real-time video and audio. Videoconferencing is widely used in various fields such as business meetings, distance learning, online education, virtual job interviews and inter-institutional collaborations. They offer practical features such as screen sharing, slideshow presentation,

instant messaging and meeting recording. Thanks to these tools, communication is optimized, enabling participants to feel closer together despite geographical distances, thus promoting collaboration and the fluid exchange of information.

- **Online meetings:** An online meeting tool is a platform or software that enables users to organize remote meetings, conferences or work sessions using real-time communication technology. These tools make it possible to bring together participants from different geographical locations in a virtual environment, enabling synchronized interaction. Online meeting tools such as online video streaming software like Adobe Connect, Zoom, Platform and Google Meet are most commonly used [25] in various sectors such as business, education, government organizations and inter-institutional collaborations. They enable users to share presentations, facilitate discussions, collaborate on documents and conduct audio or video exchanges. Common features include screen sharing, virtual whiteboarding, collaborative note-taking and meeting recording. These tools facilitate effective remote meetings, enabling participants to connect and work together, regardless of their geographical location, while reducing logistical constraints and travel costs.

- **Application sharing:** An application sharing tool refers to software or functionality that allows users to share their screen or specific applications with other participants. This enables a user to present, demonstrate or collaborate in real time on an application or software with others, even remotely. The use of application sharing is common in a variety of fields, such as business meetings, remote training, technical support and collaboration sessions. Users can share specific applications, documents, presentations or complete work environments with other participants, enabling them to view and interact with the shared content. Common features of the application sharing tool include the ability to select which applications to share, to give control to other users to interact with the shared application, and to take notes or annotate the shared screen. This tool facilitates collaboration by enabling participants to work together on a common application or software, regardless of their geographical location, thus boosting productivity and efficiency.

- **Virtual whiteboard:** A virtual whiteboard refers to an application or feature that enables users to collaborate and interact on a digital workspace simulating a traditional whiteboard. This tool enables users to draw, write, share ideas and work together in real time, regardless of their geographical location. Virtual whiteboards are widely used in a variety of contexts, including online meetings, brainstorming sessions, training courses and distance learning. Users can create diagrams, flow charts, mind maps, illustrations or take notes directly on the virtual whiteboard, while allowing other participants to view changes in real time. Common features of virtual whiteboard tools include the ability to draw with virtual pens, add text, highlight elements, drag and drop images and share the whiteboard with other participants. These tools encourage visual collaboration and stimulate creativity, enabling users to work together interactively, share ideas and visualize concepts clearly and concisely.

7.2. Asynchronous online communication tools

Asynchronous communication refers to the exchange of information over the Internet with a time delay, such as forums, e-mails, websites and blogs. Blogging is the most popular form of modern asynchronous communication, and the blogging profession has enjoyed unprecedented popularity. For example, a teacher who creates a blog develops written communication skills and puts forward an image. [26; 27] A blog is a page on a site presented in the form of a diary or calendar, where information is organized chronologically. Teachers can include text, photos, audio, video, links to other sites and web articles. Learners who blog as part of their studies deepen their learning and develop global thinking [28]. Anderson and Elloumi demonstrate that blogging is a learning style that encourages students to learn, express their opinions, criticize other positions, participate in individual and team projects, and freely share their research and reflections. Weblogs enable students to generate knowledge and express themselves freely. This characteristic of blogs makes them useful in the educational process [29]. Here are some of the most commonly used asynchronous online communication tools:

- **Forum:** A forum tool is an online platform or software that enables users to participate in discussions and exchange information on specific topics. Forums provide a virtual space where users can post messages, ask questions, share opinions and interact with other community members. Forums are used in a variety of contexts, including online education, online communities, interest groups and support platforms. Users can create new discussion topics or participate in existing discussions, adding comments and replies. Common features of forum tools include the ability to follow discussions, receive notifications of new activity, search for specific topics and share files and links. Forums facilitate the exchange of information, problem-solving and the creation of networks of like-minded people, fostering collaboration and community learning.

- **Email:** also known as electronic mail, is an application or service enabling users to send, receive and store electronic messages. E-mail offers a convenient method of written communication via the Internet. Users can compose messages, send them to one or more people, then receive replies in their inbox. E-mail is used for a

variety of purposes, including personal, professional, educational and business communications. Users can share information, documents, attachments and links using e-mail. Common features of e-mail tools include inbox management, the creation of folders to organize messages, quick search of archived e-mails, configuration of filters and the ability to set up automatic replies. E-mail remains an essential means of communication, enabling users to exchange information asynchronously, at their own pace and personal availability.

- **Wiki:** A wiki tool is a collaborative online platform that facilitates the creation, modification and organization of web pages in a user-friendly way. Wikis encourage collaboration and knowledge sharing by providing a space where users can collectively contribute and edit content. Users can create new pages, add text, links, images, videos and other media, as well as modify existing content. Wikis are frequently used for collaborative projects, shared documentation, the creation of knowledge bases and educational resources. They enable users to work together, share information, discuss ideas and dynamically update content. Features of wiki tools include tracking changes, restoring previous versions, commenting on pages and managing access permissions. Wikis are an effective way of gathering and organizing collective knowledge, offering a flexible and accessible collaboration platform.

- **Blogs (web logs):** A blogging tool is an online platform that enables users to create and regularly publish articles, reviews or written content. Blogs provide a personal or professional space where users can share their thoughts, ideas, experiences and knowledge with a wide audience. Users can write articles, illustrate them with images, videos or other media, and publish them on the blog. Blogs are commonly used for personal, corporate, thematic and professional blogs. They provide a platform for expressing oneself, dialoguing with readers through comments and creating an online presence.

- **Announcements and notifications:** The announcement and notification tool is a system or feature that allows users to send and receive messages to convey important information, updates or alerts. These tools are used to communicate effectively with a large number of people, informing them of important news, events, changes or reminders. Advertisements can take the form of SMS, e-mail, push notifications or pop-ups, depending on the platform used. Users can create personalized ads, schedule future broadcasts and target specific recipients. Ads and notifications are used in a variety of contexts, such as businesses, educational institutions, mobile applications and websites, to inform users of news, promotions, service updates, appointment reminders or other important information. These tools enable organizations to maintain fluid communication with the public, deliver key messages and boost user engagement.

8. The correspondence between types of communication and online communication tools

There are different types of communication, and each type of communication can be supported by different communication tools. This table summarizes the specific types of communication and the online communication tools associated with each type. It provides a clear view of the tools available to facilitate different types of communication in an online environment. Here are a few examples of how communication types and tools correspond.

Table 2 Correspondence between interpersonal communication and online communication tools

Communication tools	Use, justification and activities to be carried out in the LMS (Learning Management System) platform.
Video conferencing	The use of videoconferencing tools in e-learning in the context of interpersonal communication achieves a number of important objectives and enables a variety of activities to be planned within the LMS platform. Here is why they are used and what activities are possible: The use of videoconferencing tools : Facilitating real-time interaction: visual conferencing tools enable learners to communicate directly with instructors and with each other. Creating an engaging learning environment: videoconferencing makes e-learning more interactive, engaging and user-friendly, helping to keep student motivation high. Strengthening social presence: Interacting with real faces and voices via videoconferencing increases participants' social presence, which can alleviate feelings of isolation during online learning. Activities to be carried out in the LMS platform with videoconferencing tools : Live courses

	Discussion and Q&A sessions Group work Guest lectures Live tutoring Oral assessments Follow-up meetings Simulation activities Project presentations
Instant messaging	The use of instant messaging tools : Real-time communication: instant messaging tools can establish real-time communication and promote fast, efficient communication between students, teachers and pairs. Coaching and support: These tools can be used to provide immediate support, answer students' questions and guide their learning. Informal discussions: instant messaging encourages more informal discussions, which can strengthen relationships between participants and create a friendlier learning environment. Activities on the LMS platform with instant messaging tools: Live chat during lessons Discussion groups Individual tutoring sessions Asynchronous collaboration Surveys and polls
Audio and video calls	Use of audio and video calling tools : Real-time communication: These tools offer real-time communication, enabling learners, instructors and peers to connect and interact instantly. Richer interaction: Audio and video calls enable richer interaction by incorporating visual, auditory, and kinesthetic elements that can enhance understanding and engagement. Enhanced social presence: Visual and voice interactions enhance social presence, which can reduce feelings of isolation and create a bond between participants. Activities to be carried out in the LMS platform with audio and video calling tools: Individual feedback Specialized training sessions Project presentations Practical exercises Real-time collaboration
Forum	The use of forum tools: Asynchronous communication: Forums enable learners to communicate asynchronously, meaning they can participate in discussions at their own pace, which is particularly useful for learners spread across different time zones. Debate and idea sharing: Forums provide a space for debate, exchange of ideas and in-depth discussion on specific topics, encouraging critical thinking. Collaboration: Learners can collaborate on projects, share resources and solve problems by using the forums as a common workspace. Feedback and support: Forums enable learners to solicit feedback from their peers or instructors, and receive support for their learning. Activities on the LMS platform with forum tools : Discussions on course topics Group work Question and answer forums

	Feedback and support forums
	Online debates
	Case studies

Table 3 Correspondence between written communication and online communication tools

Communication tools	Use, justification and activities to be carried out in the LMS (Learning Management System) platform.
Live chat	Using live chat tools: Real-time communication: Live chat tools enable real-time communication, promoting quick and effective exchanges between learners, instructors and peers. Immediate support: Live chats are useful for providing immediate support, answering learners' questions in real time and guiding them in their learning. Informal discussion: Live chats encourage more informal conversations, fostering interaction between participants, strengthening relationships and creating a friendlier learning environment. Activities on the LMS platform with chat tools : Real-time question-and-answer sessions Technical support Instant feedback Surveys and open questions Individual or group follow-up meetings Real-time problem-solving activities
Blogs	Using blogging tools : Content creation: Blogs provide a space where learners can create and publish written content, encouraging self-expression and the creation of educational content. Personal reflection: Blogs enable learners to think more deeply about course topics, organize their ideas and develop their critical thinking skills. Knowledge sharing: Blogs are a way of sharing knowledge, ideas and perspectives with other learners, promoting peer-to-peer learning. Activities to do in the LMS platform with blogging tools: Publication of blog posts Debates and discussions Collaborative blog project Peer feedback Learning portfolio Assessment of writing skills
Wiki	Online wiki platforms enable collaborative written communication, allowing users to create, edit and organize web pages to share information, knowledge and collaborate on projects. Using wiki tools : Collaboration: Wikis promote collaboration, as several learners can contribute to the creation of content in an interactive way. Collaborative content creation: Wikis enable learners to collectively create documents, articles or resources, adding, modifying or deleting content. Knowledge sharing: Wikis are a means of sharing knowledge, ideas and perspectives between learners, promoting peer-to-peer learning. Activities to be carried out on the LMS platform using wiki tools: Creation of educational resources Collective editing of articles

	Collaborative projects
	Collaborative assessment
	Collaborative revision

Table 4 Correspondence between oral communication and online communication tools

Communication tools	Use, justification and activities to be carried out in the LMS (Learning Management System) platform.
Audio and video calls	The use of video and audio calling tools:
	Real-time communication: Video and audio calls enable real-time communication, promoting direct and immediate exchanges between learners, instructors and peers.
	Oral interaction: These tools encourage oral interaction, which is particularly useful for improving communication, elocution and speaking skills.
	Reinforced social presence: Video and audio calls reinforce social presence, reducing feelings of isolation and creating a bond between participants.
	Activities to do in the LMS platform with video and audio calling tools:
	Live courses
	Oral assessments
	Real-time question-and-answer sessions
	Practical exercises
	Follow-up meetings
Online conference	The use of online conferencing tools :
	Real-time communication: Online conferencing tools enable real-time communication, promoting direct and immediate exchanges between learners, instructors and peers.
	Oral interaction: These tools encourage oral interaction, which is particularly useful for improving communication, elocution and speaking skills.
	Reinforced social presence: Online conferences reinforce social presence, reducing feelings of isolation and creating a bond between participants, especially when learners are at a distance.
	Activities to be carried out in the LMS platform with online conferencing tools:
	Real-time question-and-answer sessions
	Real-time individual tutoring
	Oral assessments
	Real-time collaboration
	Follow-up meetings
	Specialized training sessions
Announcements and Notifications	Using announcement and notification tools:
	Effective communication: Announcements and notifications are quick and effective ways of communicating with learners, instructors and course members.
	Dissemination of important information: These tools help disseminate essential information, such as course announcements, reminders, schedule changes, deadlines and other crucial information.
	Learner engagement: Notifications can be used to encourage learner engagement by informing them of new activities, ongoing discussions or available resources.
	Activities to do in the LMS platform with announcement and notification tools:
	Course announcements
	Reminders and deadlines
	Activity notifications

This table shows a general correspondence between some types of communication and online communication tools, and that there may be variations and overlaps depending on the context of use.

9. Conclusion

Classic and online communication both play vital roles in our lives and in our daily routines, digital online communication has become indispensable. In this article, we have explored various online communication types and tools that enable a wide range of interactions. Each channel and platform possesses distinct characteristics. The undeniable evolution of communication practices in the realm of education has transformed the way knowledge is transmitted. Education, historically rooted in conventional communication frameworks, has progressively adapted to technological advancements, embracing online communication as a fundamental medium. This evolution has been facilitated by a diverse array of online communication tools and technologies that offer novel perspectives to educators, learners, and educational institutions. As part of the learning activity, our next article will look at a detailed analysis of the e-learning communication tools and online courses that are becoming increasingly common, using LMS platforms for education and training, and will answer the question what are the most suitable online communication technology tools for carrying out e-learning activities in an LMS platform?

Compliance with ethical standards

Disclosure of conflict of interest

Ouariach Fatima Zahra, Zine El Abidine Mohammed, Nejjari Amel and Khaldi Mohamed declare that they have no conflict of interest.

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