THE EVOLUTION OF COMMUNICATION UP TO THE CONTEMPORARY PERIOD

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Abstract

Human communication is the basis of society; it is the transmission of ideas, thoughts, and feelings. Throughout time the human manners of communication have become more numerous and more complex. On the one hand, they were supported but also influenced by the new inventions from the technical field.

The process of the communicational act started from the invention of words and language, written text on clay plates and reached till the use of advanced technology like computers, tablets or smart phones (with Internet connection). The classical typology of communication assumed new features in the light of the introduction of the new means of communication.

In this article we shall provide a short analysis of the human communication act, of its evolution and diversification under the pressure of globalization during the contemporary period.

Key words: *communication, computer, information, ICT, Internet, WWW.*

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1. Introduction

Communication is an essential feature of human existence without which the human species may not have continued or at least not evolved to what it is today. It can be found in some forms in plants and animals, but only to support the survival or continuation of the species.

The notion of communication has deep roots, probably concomitant with the appearance of man. Through this, people have exchanged information (for example where to find food sources or find out about dangerous places), the idea (how to use a tool to cultivate more effectively). For man, communication meant both survival and progress.

Communication has various definitions depending on the field of activity to which it relates. Thus it can be regarded as a physical phenomenon, indispensable through which the exchange of notions is fulfilled, as a social function of union, relationship or as a way of intellectual enrichment of the individual.

Technological discoveries have given rise to the concept of "media". Generally speaking, the term designates media institutions and organizations (radio, television, print media), but it can also refer to interactions between new technologies and classical communication.

2. Aspects of human communication

One of the most quoted definitions could be the following: "communication is a process in which people share information, ideas and feelings" (Hybels, S., & Weaver, R.). Another perspective analytically analyzes the problem by claiming that "communication is the process by which a party (called the transmitter) transmits information (a message) to another

party (called receiver)" (Baron, R.).

An attribute of communication is that the interacting parties cause mutual changes, so that is why we consider that each act of communication is unique. Given that the information transmitted could be the same, but with different actors or in a different situation – it results a way of interpretation filtered through the personal socio-intellectual spectrum - "the field of experience" (DeVito, J.) is different. What has been said can not be withdrawn, deleted or modified, so communication has permanent effects.

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From the analytical point of view, the act of communication implies the existence of the following actors: *the transmitter* (the originator, the source) and *the receiver* (receiving the respective information). In order to fulfill its communication purpose, *the message* passes through *a channel* that is under the influence of disturbing factors (fig.1).

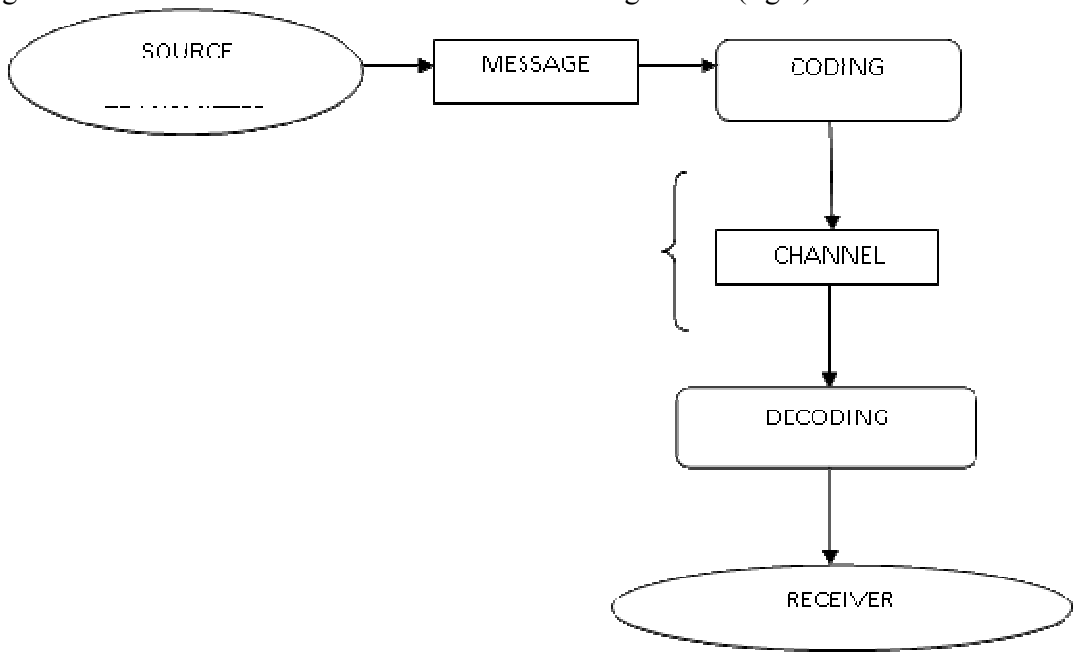

Fig.1. Conduct of the communication act
(Adaptation from Shannon and Weaver model).

Communication is a complex phenomenon characterized by the following aspects (elaborated by Paul Watzlawick, J. Helmick Beavin and Don D. Jackson according to Dinu M.):

a) Communication has two functions: an informational one (the transmission of information) and a relational one (the social dimension);

b) It is irreversible (once it has been sent, the message cannot be retired);

c) It evolves and adapts itself to the fact that in a communication situation in which the participants know each other, they decode messages faster and using fewer elements over time;

d) From the perspective of social status, the way of communication is adjusted by respecting the relations either vertically or horizontally (for example, if we communicate with a person in a similar social position, the language used will be less formal);

e) A communication sequence can not be studied separately because every communication act comes from all the communication situations in which the actors were involved, "we communicate by implying our entire past, including the original spiritual dowry" (Henri Bergson);

f) Can be in "digital or analogue" format (Bogdan Nadolu). Digital is neutral, easy to understand for anyone and digital means that in order to decode its message, we must also take into account paraverbal and nonverbal clues;

g) Lack of communication is presumed to be impossible (in the absence of a receiver, communication is considered to be internal verbalization, also a communication act is when we say nothing but transmit through physical occurrence, gestures, etc.).

3. Classifications of the communication act

a) Depending on the context in which they are taking place, we classify *formal communication* (specific to some areas of activity and involves compliance with protocols) and *informal* (natural, independent of certain formalities).

b) The context of the communication establishes a new way of classification *direct* (the transmitter and the receiver are in direct contact) and *indirect* (made through telephone calls, letters, television, radio or the Internet).

c) Taking into account the number of actors we have:

1. *Intrapersonal communication*, that is mental verbalization of thoughts,

2. *Interpersonal communication* between two people. This can be done directly face-to-face or mediated;

3. *Group communication,* materializes in the form of direct or indirect debates. Organizations can make use the Internet in order to achieve this.

4. *Mass communication* - the transmission of messages from an institutional media within a collectivity. This is a social activity specific to the contemporary age which is manifested through specific visual and auditory means.

d) Another angle from which the communication activity can be regarded is the relation to the way of coding and transmitting the message. From this perspective, we observe the existence of the following types of communication:

1. *Verbal* - is the most widespread, representing, moreover, a template for other ways of fulfilling the act of communication. It can only be conveyed through words.

2. *Paraverbal*, is characterized as *the message behind the words* because it is manifested by elements (prosodic) that are meant to influence such as volume, tone, accent, pauses, diction, rhyme, rhythm.

3. *Nonverbal communication* is manifested by non-verbal clues, which can be deliberately expressed to influence or unconsciously the transmitter transmits indices of his inner state (gestures, mimics, body position). A special approach to communicating through non-verbal expression is *NLP - Neuro-linguistic Programming.*

e) The communication act after its realization, receives a reverse result from the receiver to the transmitter, called *feed-back*. Depending on the time interval until it manifests, we can indicate two other types of communication.

1. *Synchronous* - information sharing is done concurrently, in real time (either face-to-face or telephone conversation via live communication via an Internet connection);

2. *Asynchronous* - it is done by written messages (for example letters, sms, e-mail, etc.) which imply a delay of the answer.

4. The evolution of the ways of transmitting information

At first people communicated through various sounds, then, from the need to convey more complex information, people invented words, and thus the language was born. Researchers in the field have come to the conclusion that the basis of all languages is a single, Indo-European one spoken by all people 5000 years ago.

Over time, along with man's evolution, the ways of communication also evolved. **Books** were an effective way of transmitting information to a large number of people. The first cards were in the form of clay tablets, evolving into wooden pads tied together with leather straps or silk threads (China). It followed the papyrus and soon the parchment. Cards were very expensive and rare and copied by hand. In the Middle Ages they could only be found in churches and rich nobles.

The invention of the printing press accompanied by the development of postal services in the major cities promoted the circulation of books and the emergence of the first newspapers (the 15th century, Johann Gutenberg).

Telecommunications have been introduced as a result of the new inventions in the technological field. The technological *boom* in the 19th century, the discovery of electricity and electromagnetic waves, has also been mirrored in the field of telecommunications. The means of communication have been enriched, diversified being terrestrial (by automobile, by train), sea (by ship), aerial (by airplane) or remote by wire.

The Telegraph (1837, S. Morse,) used electricity to send textual or symbolic messages (through the Morse Alphabet). Man is no longer limited by the space-temporal feature. It has been extensively used by large companies after being adopted by US postal services and railways.

Along with the telegraph, and following closely, **the phone** (1876, G. Bell - an electrical device that could transmit the human voice) became very popular. Telegraph and telephone wire systems were created, air lines and submerged ocean cables were installed. The first attempts to transmit the image through television followed. The phone (Graham Bell) has made it possible to transmit information without using a code.

Informatics, *the science of systematic information processing, especially computer-based processing* (Wikipedia) emerged as a reaction to the growing need for people to perform complex calculations as quickly as possible. Over time, this new science has increased its applicability from the mathematical field to many other scientific, research, entertainment, or household activities.

A number of other scientific discoveries in the field of electronics have led to the invention and installation of the first microprocessor, which later materialized in **the personal computer** or **microcomputer**. Nowadays it has become an indispensable object that we can find in almost every house.

The first microcomputer, manufactured in series (1981 by IBM, the main computer manufacturer), was called the personal computer (PC- *personal computer*), which was considered to be very complicated by the beginner users. Apple introduces the small Macintosh computer created specifically for those with limited computer knowledge (1984). The computer screen displays icons that illustrate different computer functions. For the user, it is enough to simply click on the mouse what he is interested in to activate them. *The software* is installed in the disk memory.

We can have editing programs that serve to write and correct texts. Using tables, the computer can compute, compile statistics, and make predictions. Graphics programs are used to draw on the computer screen, attach photos and texts in the document, edit or retouch pictures, etc. Programmers make programs so that they are as accessible as possible to the general public.

When computers are connected to each other, we say that they are in network, which makes it possible to make a quick exchange of information regardless of the physical distance between them.

The first network, Arpanet (in the late 1960s), had a military purpose. The objective of the US Army was to build a wartime telecommunications network and if a part of the network was destroyed, the information would still reach the recipient using another way.

Meanwhile, other networks have been built, and because they wanted to connect all networks to each other, it was necessary to create a common "TCP / IP" language. **The Internet** represents the multitude of computer networks, the network of networks.

At first, only present in universities for the exchange of information in the early 1990s, it became accessible to the public. However, the use of the Internet involved the existence of a provider (an institution facilitating Internet access at a charge) and a computer equipped with a modem, or simply a user can visit *a cyber cafe*. Some of the services offered by the Internet are *electronic mail* or *e-mail*, participation to conferences or discussions organized on a site

where you can communicate on a specific topic with users from all over the world (in writing) or video conferencing (live video and audio)

The Web (World Wide Web "World Spider Canvas") is the entire array "of linked sites / documents and hypertext related information that can be accessed through *the World Wide Web*" (Wikipedia). "Browsing" on the Web is when the user selects an underlined word or images, it is linked with documents (texts, still or moving images, sounds) located on another Web site.

5. Communication through new multimedia technologies

The role of new multimedia technologies is to simplify inter-human communication and to "make friends" with the "machine". Researchers are working on developing new means of communication, continuously developing multimedia tools that are used by more and more people. Their intention is to produce miniature "devices" that are as easy to use as to transport.

For example, we can use **portable computers** that can be equipped with a mobile phone to make calls easily, receive and send faxes or we can "browse" the Internet.

A Personal Digital Assistant (PDA) combines the features of an electronic agenda with Internet access. All data recorded on a PD can be transferred onto a computer.

Over the past 10 years, the PDA has lost ground in front of **smart tablets** and **smart phones**.

A smart phone is a device that combines the functions of a PDA with many others, for instance: photo camera, email, GPS navigation, computer, video camera, entertainment and most importantly equipped with Internet connection. With a smart phone or tablet you can do almost anything you can do by using a computer.

The tablet is a miniaturized portable computer, wirelessly connected to the Internet and the GSM network, and is part of the *Mobile Internet Devices* (MID) category.

Nowadays, no matter what type of device we use, we increasingly relate to having the possibility to establish an Internet connection. In addition to classic virtual mail or web search for information, the Internet provides us with a wide range of variations (chat lists, FAQ - frequently asked questions, IRC chat, video chat, instant messaging, portals, telephony, and more) with real-time response. Surely, as new devices will be introduced, new ways of communicating will be created or adapted.

The ways of modern communication keep the classical typology of the communication act, combining it according to the means of communication used. For example, using instant messaging, we can use both verbal communication (short recordings transmitted to the recipient and / or live transmissions) and paraverbal communication and / or nonverbal communication through the *emoticons* (*GIF*s or others) provided by the respective programs or applications (some combining the image with the sound), so that the user is garanteed that the message is transmitted together with all its connotations.

Conclusions

For human beings communication is that important as it is widely considered that the essence of a person is the result of all of the acts of communication we have received or witnessed during our lives.

The manners of human communication have developed in time and have been improved together at the same time with the evolution of society and maintained themselves on the same axis of values.

The technological progress has led to the emergence of new ways of communicating (for instance: phone calls, sms texting, and online communication). These, in turn, entail the emergence of new types of communication.

The online communication, although initially it had a military purpose, that is to guarantee the stability and protection of military communications in the event of war, has created a bridge between "anyone" and "anywhere" either in real time or "anytime" (audio or video recordings).

The information and communication society is the result of the digital technology explosion; information through modern means of communication is characterized by accessibility, simplicity in use, and it also implies low costs.

New communication techniques are currently used in all areas of activity to facilitate the transmission of information (military, economic, media, scientific, educational etc.), having a great success among young people for education, research or entertainment (Facebook, blogs, games online, chat groups, etc.) purposes.

The future of communication may hold inventions like The Internet of Things (IOT – hardware devices communicating with the Internet to create the business of the future or the house of the future; partly exists nowadays but is still in the process of perfecting) and voice activated technology.

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Lista figurilor:

- Fig 1. Desfăşurarea actului de comunicare (adaptare după modelul lui Shannon şi Weaver).