

1.17 A Brief History of Communication

Aim

- To study briefly the history of communication, and the various cultural revolutions that have taken place.

Materials Required

- Copies of the Input

: Input

: A Brief History of Communication

: Since the dawn of time the attempt to communicate has been a human endeavour.
: The historians divide the story of communication into four periods of time i.e. oral, writing, printing and electronic eras.

A **Oral:** The first means of sending messages would be through rough noises and body language. This is the era of oral communication accompanied by supporting symbols and signs. A kick, a hit of the hand, a stroke, a grunt, a yell, a scream, would all be used to let others know your feelings, needs, and wishes. As this era progressed, so did the use of an oral language develop. Different groups created their own languages with particular sounds to describe specific objects or activities. This development was an intellectual advancement that sets human beings apart in the world. Of all living creatures, people alone have the ability to speak to one another in a developed language of words. They used language, art, drama, presentation, speaking and communication amongst others. The question therefore is: Were these any different to television, or any other modern means of communication in purpose?

B. **Writing:** Writing is the first “technical” creation in human communications. Hieroglyphics was the first pictorial style form of writing. It was developed in Egypt more than 3000 years Before Christ. It consisted of simple drawings of familiar sights/shapes to follow after one another. A thousand years later, a different pictorial form of writing was developed in China. Hieroglyphics went through great changes over many years until it became an alphabet form of writing as we have today. The basic value of this alphabet was to help in the process of learning and pass on useful information.

C. **Printing:** Printing is the ability to take the written word and reproduce it over and over again. In Germany in 1450, a goldsmith Johannes Gutenberg created the first printing press in Europe but he was not actually the first to create a printing press as it had existed in sorts before the time of Jesus. This type of printing needed a carved wooden plate. Later on in Europe (mid 15th Century), a movable type printing press was a historic event, because of the possibility of printing onto paper. Paper was made firstly in China. Through the capture of Chinese people, the skills of paper making came to Spain and on into all of Europe. Communication moved a leap forward with the invention of printing in Europe. Printed books increased in numbers as the years went by. They provided the most important means of learning and of entertainment. Printing remains an important means of communication. Recent advances in technical means of printing have increased the number of volumes published.

D. **Electronic Audio -Visual Culture:** Nearly 400 years after Gutenberg ushered in the era of the print medium, Samuel Morse transmitted the first message over telegraph from Washington to Baltimore. This was the next great revolution in the history of communications. As technology matured, it took the form of electronic information networks.

Television is considered to be the dominant medium in this culture as it seems to undermine the power of logos, the slow development of rational understanding and analysis in favour of rapid and fragmented bits of information. Instead of abstract conceptual language, it provides vivid, particularised images and instead of intellectuals, it creates celebrities. Today, they set the social, cultural and political agendas of modern society. The crucial factors in changing culture

and human behaviour are not just ideas, philosophies, and religions, but more fundamentally the technological innovations of the era, especially when they touch on communication (McLuhan). In the words of Pierre Babin, it is not the audiovisual media in themselves, but a radical change in the culture of young people which challenges us today. The introduction of electronic media has changed the meaning of all of our cultural institutions and every aspect of our structures of thought, including changes to both religious institutions and theological concepts. According to him in the electronic culture, the message is not in words but in the effect produced by the whole complex known as the medium. These media are not just technologies transporting content, but they form a world, an enveloping environment.

The age of information is not a matter of creating individual pieces of information or communicating information, in the sense of transmitting from sender to receiver. It is a matter of giving the existing information new form: that is, putting this information into a new framework, which both reorganises the internal relations of data and transforms their external display. Hence it is an era when putting on a show carries more weight than do values and underlying realities. Both the affective and the imaginative, strongly stimulated by audiovisual images are becoming a part of human and religious functioning. The shift is from the message to the medium; from meaning to the effect; from linear, logical, doctrinal to the audiovisual (emotional, imaginative); from words to modulations; from matter to form; from the figure to the ground; from pure information to entertainment. Babin speaks not just the presence of audiovisuals but of a new culture and new way of living (Babin).

- E. **Age of Information Technology:** The first large-scale electronic computer, the grandparent of today's handheld machines, was the Electronic Numerical Integrator and Computer (ENIAC) contained approximately 18,000 light-bulb-size electronic vacuum tubes that controlled the flow of electric current. It weighed 30 tons and occupied about a 1800 square feet of floor space - a huge machine by today's standard. It was able to multiply four numbers in the then remarkable time of 9 milliseconds. From that start, computers have developed through four so-called generations or stages each one characterised by smaller size, more power, and less expense than its predecessor.

First Generation (1944-1958)

In the earliest general-purpose computers, most input and output media were punched cards and magnetic tape. Main memory was almost exclusively made up of hundreds of vacuum tubes - although one computer used a magnetic drum for main memory. These computers were somewhat unreliable because the vacuum tubes failed frequently. They were also slower than any microcomputer used today, produced a tremendous amount of heat, and were very large. They could run only one program at a time. ENIAC and UNIVAC I - the UNIVersal Automatic Computer, which was used by the U.S. Bureau of the Census from 1951 to 1963 - are examples of the first-generation computers. The UNIVAC was priced at \$500,000 in 1950; today, you can purchase microcomputer chips with the same processing power for less than \$100.

Second Generation (1959-1963)

By early 1960s transistors and solid-state devices, much smaller than vacuum tubes were being used for computer circuitry. (A transistor is an electronic switch that alternately allows or does not allow electronic signals to pass). Magnetic cores became the most widely used type of main memory. Removable magnetic disk packs were introduced as storage devices. Second-generation machines tended to be smaller, more reliable, and significantly faster than first-generation computers.

Third Generation (1964-1970)

The Integrated Circuit (IC) - a complete electronic circuit that packages transistors (signal bridges) and other electronic components on a small silicon chip - replaced traditional transistorised circuitry. The use of magnetic disks for secondary data storage became widespread, and computers began to support such capabilities as multiprogramming (processing several programs simultaneously). Minicomputers at the time were being used by the early 1970s and were taking some of the business away from the mainframe market. Processing that formerly required the processing power of a mainframe could now be done on a minicomputer.

Fourth Generation (1971-Now)

Large-Scale Integrated (LSI) and Very-Large-Scale Integrated (VLSI) circuits were developed. They contained hundreds to millions of transistors on a tiny chip. In 1971 Ted Hoff of Intel developed the microprocessor, which packaged an entire CPU, complete with memory, logic and control circuits, on a single chip. The microprocessor and VLSI circuit technology caused radical changes in computers - in their size, appearance, cost, availability and capability - and they started the process of miniaturisation: the development of smaller and smaller computers.

During this time, computers' main memory capacity increased and its cost decreased which directly affected the types and usefulness of software that could be used. Software applications became commercially available, giving more people reasons to use a computer.

1. From oral culture to literate culture

Undatable starting points: From nonverbal communication (gestures) to speech - One of the earliest evidences of our ancestors communicative facility is found in cave paintings and carved objects (roughly 35,000 B.C) - in caves of Southern France, inner Sahara and Australia.



There are a number of theories on the origin of speech (but no direct evidences or theories are available). Hunting by night, living in dark caves, the primitive human beings must have discovered that voice signals, instead of being incidental to his main activities, could take over many of the functions of visual signals and gestures; they began to associate certain sounds with certain experiences or behaviours.

The development from sign writing to sound writing (based on alphabets). The hieroglyphs of Egypt and Crete were mostly pictures, although each one stood for a word-sound. The early writings were sign based and pictorial in style. To write a sentence in pictorial form required an artist and a great deal of time. Gradually, therefore, the pictorial signs must have come to stand for sounds rather than a scene or event. Slowly the process of abstraction began and we had sound based alphabets (Greek alphabets). It is generally believed that writing began around 5500 years ago in Sumeria... the Sumerians used pictographs and then we have the famous Egyptian Hieroglyphs. Then we have the invention of the alphabet.

2. The Mechanisation of writing - birth of mass media

By 1403, the Koreans make cast metal type (already by 1040 the clay type was invented in China)

1450 - Johann Gutenberg perfects the movable metal type to create the first effective printing techniques in Europe, to usher in the era of print media (with the Gutenberg Bible and other documents). He created a viable way of making multiple copies of written texts at relatively low cost.

1605 - 10 - The first regular newspapers appear in Europe.

1690 - Benjamin Harris prints the first newspaper in America "Public Occurrences".

1848 - Six New York newspapers join forces to form the Associated Press in an attempt to cut telegraph costs.

3. The Audio-Visual revolution

- This period is very unwieldy... a continuous string of discoveries... it is also difficult to date inventions... new ideas build on old ideas. Invention encourages invention and technology builds on technology.
 - 1822 - First photograph by Nicephore Niepce.
 - 1824 - The principle of motion pictures is discovered...
 - 1839 - Talbot produces a photographic negative, Daguerre and Niepce perfect photograph; photographs appear in journals.
 - 1844 - Samuel Morse transmits first message over telegraph.
 - 1876 - Alexander Graham Bell invents the telephone.
 - 1878 - Thomas Alva Edison develops the first phonograph.
 - 1894 - Thomas Edison's Kinetoscope.
 - 1895 - Guglielmo Marconi invents the wireless telegraphy.
 - 1895 - Auguste and Loius Lumiere project the motion picture.
 - 1904 - Flemming develops glass-bulb detector of radio waves.
 - 1906 - Vaccum tube is perfected by Lee Deforest, for radio.
 - 1915 - First long film "The Birth of the Nation" by D.W. Griffith.
 - 1920 - Zworykin resumes television experiment.
 - 1927 - First talking picture (The Jazz Singer).
 - 1928 - Zworykin patented the first TV system.
 - 1938 - Television sets go on sale to public at \$600 each (half the price of a new car).
 - 1939 - TV broadcast demonstration at New York.
 - 1941 - First colour TV image.
 - 1942 - Magnetic tape is invented.
 - 1943 - Frank Sinatra becomes first pop idol of teenagers.
 - 1944 - Program sponsors experiment with TV commercials.
 - 1946 - ENIAC, the prototype of modern electronic computers.
 - 1947 - Dennis Gabor invents the hologram.
 - 1948 - Bell Telephone Company invents transistor.
 - 1958 - Gordon Gould invents the laser.
 - 1962 - Telestar satellite makes live international broadcasting feasible.
 - 1975 - Sony introduces home video recording system and VHS follows two years later.
- Around 1970 ARPA net (Advanced Research Project Agency) set up the first parts of what would become the internet. Later ARPAnet extended to non-military uses.

History of Print Media

3rd m BC	Clay Tablets - Babylonia
2500 BC	Papyrus Scrolls - Egyptians
104 AD	Paper - Chinese
200AD	Books - Vellum Codex Replace Scrolls
6th Century AD	Block Printing (Book Printing in China - Chinese
1450	Printing - Movable Type - Gutenberg
1461	Book Illustration - Woodcut - Pfister Engraving

1889	Haltone - Herald
1562	First Monthly Newspaper in Italy
1594	First Magazine in Germany
1663	Magazines (Professional - Theological) - Grist
1814	Web Fed Rotary Presses (Steam Power)
1842	The Illustrated London News (16 Pages of Letterpress/32 Woodcuts)
1880's	Linotype - Keyboard Typesetting Machines
1936	Life Magazine Founded (Photo Journalism)
1970's	Phototypesetting
1979	US Postal Service Experiments with Electronic Mail
1980	Home Computer Available for Less than \$500
1980's	Computer - Desk Top Publishing Systems

Review

1. Since the dawn of time the attempt to communicate has been a human endeavour.
2. The story of communication is divided into four periods of time i.e. oral, writing, printing and electronic eras.

Reflection

Group the students into groups of 6 students and have them research on the steps that communication development in their ethnic community went through e.g. from cave drawings to drum beating.

Relevant Skills

Identify how the mass media have affected people's socio-culture over the years. Compare this with former days when these forms of communication were not present.

Resources

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