

# Technological Advancement and Changing Paradigm of Organizational Communication

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**Abstract-** The development and advancement in technology has significantly improved our lifestyle. Technology has made its impact on nearly all the dimensions of life including ways of communication. Advancement in the field of communication has made remarkable improvement, starting from the symbol style of communication to the latest digital mobile equipments and computers. Communication itself has not changed, rather the means, which we use to communicate have changed. The manners associated with the ways we communicate with each other continue to be the key to how we understand each other. As new technology emerges, there are new manners associated with the new method of communication. Present study has descriptively analyzed and discussed the historical development, changing paradigms, latest issues and challenges of organizational communication.

**Index Terms-** Changing Paradigms of Communication, Organizational Communication, Challenges in Effective Communication

## I. INTRODUCTION

Increase in population of mankind and man's desire to manage and provide all the resources and means of satisfaction for basic needs and comfort for every human being has lead to mass production of goods and services. Mass production is possible by organized working and interactive living together at work place. Organized working and interactive living is possible with effective, useful and well developed communication. The introduction and advancement of rapidly changing technology in all fields of development, controlled and managed by man, has immensely affected all walks of life of man including communication. The time of slow business communication and snail mail at work place has gone and importance of prompt business communication at work place has become profound. This is the digital era of blended technologies of information generation and computer sciences, where message travels by using the vehicle of electromagnetic radiations with the speed of electric current. Smart android based phones of third and fourth generation have provided the facility to businessmen to check their emails anywhere at any time, audio-visually in couple or group by conferencing on the phone and also sending text to each other at any time.

Business communication can be classified as internal and external communications. Internal communication is the interaction with in the people of same company to communicate and interact with each other. Business conduction in huge size multi-national companies is possible with the help of large scale

manpower using rigorous communication. And this involves the passing of commands; orders; instructions; preparing and presentation of reports, conveying complaints, brain-storming and discussion about business issues, strategies and decisions, receiving customer's need, controlling of production of goods and services and motivating employees. Management of all these business activities is important and crucial for the smooth and successful running of business. So implementation of latest and modern technologies for business communication is must (Schramm, W., 1954).

External communication is the interaction with the stakeholders of business existing in the external environment of business. This type of communication involves interaction with suppliers, creditors, financiers, vendors, clients, customers. Interaction with all these stakeholders of business needs effective and proper lines of communication and these interactions need a concentrated effort from various units of the organization, and this can only be accomplished and managed through proper means of business communication. The importance of business communication in modern-day business and organizations must not be ignored and undervalued, since communication is considered as the life blood of any business. Present descriptive study will discuss the chronological development of business communication in the modern organizations.

## II. CHRONOLOGICAL DEVELOPMENT OF COMMUNICATION IN HISTORY

Majority of animals have a system of communication, but human beings are the one who have a well developed communication system which is based upon the unique style of spoken language (Baluska, F.; Marcuso, S.; Volkmann, D. 2006). Man's life has become very complex because of penetration of technology in all walks of his life and management of such a life is possible by effective communication only. Communication helps to inform, motivate, control, share, establish authority and express emotions (Berlo, D. K., 1960). For humans in particular, communication is also essential for creating a sense of social cohesion. Just as mankind has evolved over the centuries, our means of communication have followed suit. What began as primitive cave paintings and signed words has morphed into an endless variety of means to express oneself to others.

Communication has existed in various forms from the very beginning of the civilization on Earth. The most well-known form of primitive communication is cave paintings. The method involved creating pigments made from the juice of fruits and berries, colored minerals, or animal blood. The purpose of paintings has been questioned by scholars for years, but the most

popular theory states that the depictions were used as a manual for instructing others how to locate and kill the animals and also informing what animals were safe to eat.

Other forms of early communication existed, were like storytelling, which was used to pass on important information in the days before the existence of written word. Drums and smoke signals were also used by primitive man, but were not the most practical means of communicating. Both methods could attract unwanted attention from enemy tribes and predatory animals. These methods were also difficult to standardize. Man has depended on communication from time immemorial to relay messages to one another. Nowadays, we use complex technology to send important information to our loved ones, friends and business associates. However, the technologies we use today did not always exist. Human beings have relied on various methods to communicate with each other. These methods have depended on the progress science had made at that time (David D., 1982).

### III. DEVELOPMENT OF MEANS OF COMMUNICATION

#### **Drawing**

Prehistoric cave paintings and drawings are considered as the first form of human communication. Some early humans had their home in caves, which provided shelter and protection from the elements and predatory animals. To convey past experiences and knowledge of importance, rituals or ideas, cave inhabitants would draw pictures on the walls of their homes. Language had not developed to the point at which it was adequate to convey these concepts, so paintings and drawings communicated what words could not (Innis, H. A., 1951).

#### **Writing**

Written language developed when man settled into agrarian communities. Change in living style of man from hunting based to agriculture dependent society took place roughly 9000 years ago. Writing became important as man recognized the need to keep records of property and agriculture based trade. In the beginning, pictures represented the objects, then pictures represented sounds and ultimately language took the form of sounds and letters consisting of vocal and written alphabets.

#### **Invention of Paper**

For centuries, people tried to discover better surfaces to write, almost everything like wood, stone, ceramics, cloth, bark, metal, silk, bamboo and tree leaves were all tried and used but could not become a good means for writing. The word "paper" is derived from the word "papyrus," which is a plant, found in Egypt. About 5000 years ago Egyptians created "sheets" of papyrus by harvesting, peeling and slicing the plant into strips. The strips were then layered, pounded together and smoothed to make a flat, uniform sheet. No major changes in writing materials were to come for about 3000 years. Then a Chinese man named Ts'ai Lun took the inner bark of a mulberry tree and bamboo fibers, mixed them with water, and pounded them with a wooden tool. Then this mixture was poured onto a flat piece of coarsely woven cloth and let the water drain through, leaving only the fibers on the cloth. Once dry, Ts'ai Lun discovered that he had created a quality writing surface that was relatively easy to make and lightweight.

#### **Printing**

Writing by hand was a tedious and time consuming job, even then in the lack of technology for long span of time writing on the tree leaves remained in practice. In 14<sup>th</sup> century, block printing became popular. Block printing involved using individual engraved wooden blocks to print single words or letters. This process was expensive and inefficient. In 1454, German goldsmith Johannes Gutenberg invented a printing machine that contained movable blocks. Gutenberg's invention revolutionized book production, making books affordable and accessible (David D., 1982).

#### **Telegraph**

The invention of printing press certainly made communication easy but its use was time consuming. Scientists were searching for a quicker way to convey information. French scientists invented a communication machine called telegraphing system in the late 18<sup>th</sup> century and later an American inventor Samuel Morse improved this system by creating a machine that transformed speech into electric signals and back to the written words. His telegraph became a popular method for quick communication (R. R. John., 1995).

#### **Telephone**

In 1876, Alexander Bell's invention of telephone again revolutionized the communication field. Telephone worked on the scientific law i.e. to transfer sound and pitch across a wire by reproducing sound waves in a continuous, undulating current. Bell's invention was initially quite unpopular. The telephone did not create much excitement as the telegraph had a few decades earlier.

#### **Radio**

Early 1900's, introduced the world with a new form of communication which took the world by storm. The short-wave communication used during First World War blossomed into the hottest communication technology. Recreational broadcasting began around 1914; commercial broadcasting hit the sky in 1920. The technology really revolutionized the field of communication in 1933 when Edwin Armstrong, invented frequency-modulated (FM) radio.

#### **Photography**

The first attempt for the development of photography began in the early 1800's but had poor results. The discovery of using reverse colours i.e. positive and negative form of photographic technique significantly developed the art of photography. This type of photographic technology remained unchanged for more than 150 years until digital technology came into existence. Now a day, the equipment that was once used by professional photographers is easy to hand for everyone. Invention of photography directly didn't create much excitement in the field of communication but indirectly it was a mile-stone for the invention of audio-visual communication.

#### **Television**

Television appeared for the first time in 1939 through New York world's trade fair. It was seen as an amusing appliance but

being very costly didn't attract much attention of people and radio continued to be the most liked form of communication and entertainment. In the beginning a 10-inch screen TV set cost was over \$200 so it was an unattainable luxury for people. Only a few forms of communication had as large an impact on society as television. What was once a luxury item, is now a necessity. Ours is a global society obsessed with television. Television is a continuous and constant media of communication and entertainment.

### **Cell Phone**

Michael Faraday's principle, whether space could conduct electricity, was realized by Martin Cooper in 1973 by inventing the first portable phone handset. Four year later, cell phones became an equipment of public use. In the last 39 years, cellular phone industry has made a remarkable advancement by expanding over majority parts of globe and also by improving the technology used for the development of handsets and communication network. Present day cell phone has become a multi-media electronic gazette having number of features and facilities. Such phones can provide the replacement not only to the radio, telephone, television, personal computer but also the valuable services of banking, bill payments and a lot more. Cell phone has really made the work and personal life of its user comfortable by blending and assimilating various technologies simultaneously. It would not be exaggeration to say that cell-phone is a magic tool in the pocket of user which is not only the solution for communication problems but also provides many more services.

### **Internet**

The principle of Internet came in existence in 1967 for military purposes. An Internet technology works when simply two or more than two computers are connected to each other to work simultaneously and independently for sharing of information and data. One of the definitions of communication is "the process of sharing and transferring the information and data from one source to other." On the other hand, one of the important function of internet is same transfer of information and data from one computer to other located in near-by vicinity or may be at a distant place. This included electronic mail (email) and the use of sites containing vital information (websites). Once the internet started to catch on it was used primarily by corporations for collaboration purposes. Today the internet is available everywhere and to everyone. It is used for a variety of reasons including socializing, conducting research, and advertising. It has even surpassed the television as a source of communication because one can receive any information instantaneously.

### **Social Media and Blogging**

Social media may be defined as a special type of websites developed to have three specific facilities. These facilities include: 1) Majority of the content on the site are to be generated by the user, 2) It should provide ability for high level of interaction between other social media website users, and 3) These websites should be easily accessible to other websites. The most popular social media platform is blogging. A weblog or "blog" was first developed in 1997. A blog makes it possible for

any person with internet access to design a website without being familiar with any form of network provider coding system that is generally required to design and develop a website. Blogs are very good platform for self expression. Social media and blogging have had a significant impact on the development of socio-electronic groups and created new dimensions to the social relationships.

### **Digital Technology**

Computers represented a huge leap in communication technology. Originally, computers were used to perform complex mathematical equations. Eventually, scientists realized that computers could be used to communicate as well. The precursor to the internet was created in 1989, and it allowed scientists to share documents with each other through their computers. It was not long before the internet became publicly accessible. This technological innovation made communication faster than ever before.

## **IV. LATEST TRENDS IN ORGANIZATIONAL COMMUNICATION**

People working in the business organizations know that the advancement in technology have impact on the development of business communication system. The intensive and speedy technological change and progress during the last few years have drastically changed the communication trends. So, it is very difficult to talk about the latest and current trends in organizational communication as just in a few days the latest trends will become out dated (Montana, P. J. & Charon, B. H., 2008).

Cloud computing is the latest trend to affect business communication. The cloud computing may be compared with an electricity grid. A 'cloud' of shared servers provides resources and means to other computers on demand for performing certain functions, which otherwise, are possible by highly qualified IT and computer professionals. In reality cloud computing is the evolutionary byproduct of the web-based system of communication. It provides opportunity to non-computer professionals to take management of the technological infrastructure from professionals and use it with the help and support given by the cloud servers. The use of cloud computing type of business communication will support the small to medium size businesses for not to purchase, set up and maintain their own costly servers. Another benefit of cloud computing in business is, it decreases the chances of barriers and opportunity for hassle-free entry into the market. With the help of cloud computing technique, manufacture the product and start contacting potential customers through the cloud computing technology of internet.

The book reader is another latest trend to appear in the business communication field area, but it has not made potential impact on the business community. The book reader computer technology is meant to scan the printed language material by recognizing the characters and later by using text-to-speech software, converts it on the user's computer or mobile into audio version through audio player. In other words, if someone is not interested to read a text then use the book reader computer technology and listen to the printed subject matter on i-pod. Business people receive lot of emails, large volume documents

and other printed matter but all the time they are not free enough to read such documents, moreover most of the time it is necessary to have knowledge of these documents, so in such cases book reader option is an alternative. The affect of book reader on business communication is potentially quite significant, but so far this software is not widely tested and used.

Social media networking has become an important and useful method for customer relationship management. Using social networking techniques like Facebook, blogs, public forums and wiki sites, business can attract and keep their customers in a better way. Many companies are opting to create interactive websites where their clients can have access for product information and other necessary information whenever they need. This gives opportunity to develop new relationships and dimensions in service quality.

PowerPoint presentation is also a useful technique for communication; even it has been used for the last many years, but still is valuable audiovisual tool in effective business communication. Cell phones have also become a purposeful tool in business communication, e-mail, text messaging and internet accessing facility on cell phone has made it a highly useful tool for any business person. In future inclusion of features like the facility of book readers and other developing software will make the cell phone more business communication friendly.

#### V. IMPACT OF LATEST TECHNOLOGY ON ORGANIZATIONAL COMMUNICATION

Technology always remains in the state of evolution, development and advancement. Technological forward movement in one field area affects other fields also. During the past decades technology has developed intensively and at a very fast speed in various field areas. This advancement has affected the concerned field as well as others. Present day Organizational communication is totally technology dependent field which is affected by the developments in the field of communication technology and also by the development in other fields. The most affected dimensions of business communication are as under:

##### **Speed**

Developing technology has speed up not only the business communications but also business itself. Now a day, there is no need to wait for money in the form of drafts and other time consuming modes. Just a few clicks of one's mobile phone or PC can transfer the money from one account to other at any time round the clock. Purchase orders for products, services and raw materials can be placed and processed online preventing employees to save their time for other work.

##### **Accessibility**

Technology has greatly increased accessibility in business communication. Because of things like smart phones, email, text messaging and instant messaging, information can be sent very quickly to anyone, anywhere. People can work or communicate from anywhere and at any time. While this can expedite business communication, it can also cause work to be all encompassing, potentially having a negative impact on personal lives.

##### **Global Partnerships**

Technology has made the world a lot smaller, especially in the context of business. People from different cultures interact on a frequent basis. Global partnerships have become much more feasible as things like video conferencing have facilitated meetings that cost much less to conduct than flying halfway across the world. This has also forced business communication to become more dynamic, as individuals from different cultures learn to accommodate for the cultural and communicative differences in their business relationships.

##### **Market Access**

The advent of social networking sites has allowed companies to target demographics that are already interested in their products and services with advertisements. Moreover, active fan bases and groups have been developed to allow companies to actively communicate with their most loyal customers about company and product developments and potential special offers.

##### **Relational Dynamics**

The relational aspect of business communication has been changed definitively by the evolution of technology. With email, text messaging, social networking sites, and cell phones becoming more and more popular, face to face communication is become far less frequent. A side effect of this change has decreased emphasis on personal relationships with business contacts and clients by some companies (Shannon, C. E., & Weaver, W., 1949). Moreover, even with companies that have not discounted the value of a strong business relationship, individuals are growing less socially adept because of the minimal amount of experience they've accumulated in face to face interaction.

#### VI. CURRENT CHALLENGES FOR EFFECTIVE ORGANIZATIONAL COMMUNICATION

Communication is one of the very important elements of organizational success. Communication is considered as the nervous system of the body that gives the feeling of life to the organization and without it, organizations would not be functional. In the past few decades business communication has changed and developed as a result of the progress and advancement in technology which has changed the whole concept of communication. In comparison to past, presently we have many ways and means to communicate than there had been a few years ago. Use of latest communication devices has become necessary and almost universal in all type of business may be small, medium or large one. Present day businesses use a variety of communication methods to receive and share the information and data to keep people informed and processes operating smoothly. People involved in business understand the importance of clarity, accuracy, time-worthiness and effectiveness of communication while interacting with employees, customers, other stakeholders and public. Following are some of current challenges before effective organizational communication (Barnlund, D. C., 2008).

### **Diversity of Technology and Social Groups**

Every individual has a unique frame of reference that enables them, how they view the world, especially in the era of technological advancement. Variation in age, gender, ethnicity, religion and other factors create different style of perception for a message when received through different technologies. This differentiation helps personnel to bring more solutions to the table. But such differentiations in the communication technology and among social group types can cause the receivers to interpret messages differently than the sender intended or create with different expectations (Steven L., 1993).

### **Remote Field Employees**

Communication channels of business should remain open to the people who are away from their workplace, such as remote sales/marketing person who works away from field. The challenge increases among the companies that are involved in multi-national or global business. Cross-cultural communication adds different languages, business norms, distance and time zones to toughen the already complex equation.

### **Advanced and Always Changing Technology**

All the modern means such as e-mail, social media, web-interaction and mobile devices support people to communicate with people around the globe at warp speed. But technology can also present exceptional challenges. Information that is not face-to-face lacks the non-verbal communication and cues that we can get from facial expressions and body language. Information supplied online can be considered out of context, and the sender may not be able to clarify the message quickly. Technology helps groups to communicate through web conferences and teleconferences. But time zones, telephone static and other technical glitches can create challenges to effective communication.

### **Financial Constraints of Organizations**

New companies or those having budgetary constraints may not be able to struggle with other businesses that can afford more sophisticated methods of communication with various in and out group stakeholders. They need to find economical, traditional and outdated means such as word-of-mouth, advertising, face-to-face meetings, traditional printed newsletters, bulletin boards and telephone conversations etc. to communicate with various organizational groups.

### **Untrained Employees**

Employees who are not well versed with the latest technology are ineffective in the modern day businesses communication as such employees might not have access to the latest technology, computers or other modern mobile devices. Each business, regardless of its size, scope or number of staff members, must be skilled in the art of communication if business has to succeed and generate profit.

### **Multiplicity of Technology**

21<sup>st</sup> century is the era of technological development, so one might think that businesses would have no problem in this time, especially with reference to business communication among their employees. Present business global community is more

interconnected than ever, at any other point of time in human history. However, one of the difficulties facing today's organizational communication is that majority of employees have multiple means of communication. One employee might be having landline phone, cell phone, blackberry, email, facebook account, instant messenger account, all of which make it difficult to pass along important information. Meeting schedules, shipment orders, report deadlines, even customers can be lost when trying to navigate and constantly check multiple forms of communication.

### **Technology Glitches**

Modern day communication technology supports to send and receive messages in a few clicks. This increases the convenience factor in communication, but none of the computers are perfect and dependable. Server failures, computer crashes and network overloads can interrupt or hold back the communication of information. If this information is time bound and the sender is dependent on this technology only to safely deliver the information such technology glitches can create major problems for the communicating parties.

### **Indelibility**

Once communications have been transmitted via the current communication transferring technology, the information is transferred permanently. This can limit the effectiveness of communication by storing accidental messages, and it can also limit the effectiveness of future communications by damaging communicator's reputation.

### **Jargon**

Modern day communication technology users often use an entirely different language which is most of the time a jargon type of language. Jargon in communication language can confuse and limit the new users. Acronyms thrown around by experienced web communicators can make conversations difficult to understand for new entrants.

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