INNOVATION IN COMMUNICATION TECHNOLOGIES

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ABSTRACT:

As we know that the communication has become the important part of human's social life. Today, we are observing that there is a huge innovation from past era till present era in communication and information technologies. The means of communication has changed according to the changes in people's standard of living conditions and all other circumstances such as technological developments. Throughout history, developments in technology and communication have gone hand-in-hand, and the latest technological developments such as internet and mobile devices have resulted in the advancement of science of communication to a new level. This paper addresses how innovation based on communication and information technologies can contribute to human's life.

KEYWORDS: *innovation, technological development, communication, etc.*

1. INTRODUCTION:

Communication is not something which we consciously think about in most situations. However let me urge that communication and targeted exchange of information are basic components and a foundation of our lives. Living creatures communicate with each other by using some form of tools or other means. In course of time and history, many possibilities derived from technical-evolutionary ideas have been developed for communication, cooperation, and exchange of information over many centuries. Ultimately it is the human drive to be successful and efficient in communicating, processing, and transmitting information that drives this process.

Let us look back at the technological developments that have taken place at the end of the 19th century and the beginning of the 20th century. At the time, our "modern" information exchange and communication by telegraphy (1837,Samuel Morse F.B.) OR Telephony (1876, Alexander Graham Bell) were in the infant stages.

Telephone, smart phones, tablets and computers run our lives these days. In very little time technology has exploded in the market and now, many people cannot imagine a life without it. To understand how we got from back in the dark ages (which really wasn't all that long ago) to where we are today, it s important to understand how technology evolves. All technologies are born out of purpose. For e.g., search engines were created to sort through the massive amounts of data online. With each upgrade technology compounds existing technologies to create something better than what was previously used before. Communicating relevant, mission critical information is an indispensable task in today's work environment as well as in our private lives. Success is in part based on how much knowledge we have, which itself ultimately depends on how we communicate and how fast we process information.

2. WHAT CHANGED THE COMMUNICATION INDUSTRY?

In fast past few decades, a technical change took place due to the changing conditions and requirement of information processing with the need to communicate and collaborate in our global economy.

In addition to globalization, an important benefit for business was also created by countless technical developments. For example, the invention of the internet was considered one of the biggest changes in the information community since the invention of the printing press. The initial networking of universities and research institutes which later spread into the commercial sector, and eventually to the private sector, had an unexpected impact on various areas of everyday life. In 1990, the internet was given virtually free by the US National Science Foundation to the world as a communication network for various technology companies, research institutes, and universities to develop.

3. **HOW COMMUNICATION HAS EVOLVED WITH NEW TECHNOLOGIES?**
    The process of human communication has evolved over the years, with many path-breaking inventions and discoveries heralding revolutions or a lift from one level to another.

    i)   The invention of pictographs or the first written communication in the ancient world gave us written communication. These writings were on stone and remained immobile.

    ii)   The invention of paper, papyrus, and wax, culminating in the invention of the printing press in the 15th century, made possible transfer of documents from one plce to another, allowing for uniformity of languages over long distances.

    iii)   The latest revolution is the widespread application of electronic technolog such as electronic waves and signals to communication, manifesting in the electronic creation and transfer of documents over the World Wide Web.
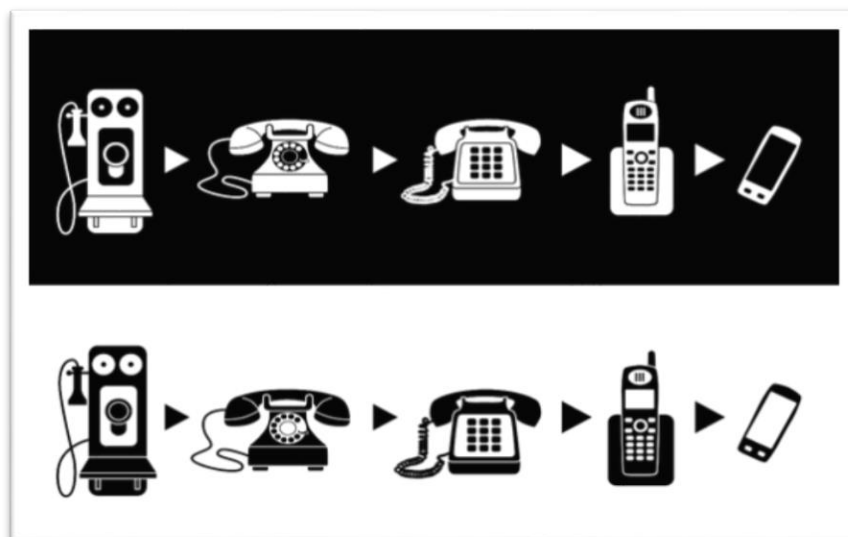

Figure 1

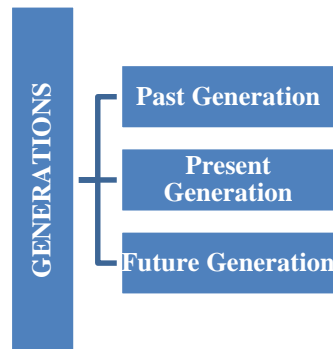4. **THE MEANS Of COMMUNICATION IN THE PAST, PRESENT, AND FUTURE:**

Figure 2

❖ **PAST GENERATION:**

- Throughout history, the technology has had a huge impact on the means of communication. In, the past, smoke was used as a means of communication from one mountain to another. Needless to say that only a few simple messages could be sent and received with this primitive method of smoke signals.

- Carrier pigeon was another means of communication to send messages further away. The pigeon were trained for this two way communication method of letter carrying.Carrier pigeons were used to get information from one place   to another quite quickly(compared with people walking or running).The person who wants to send the message back to a set place takes trained homing pigeons from that set place.When some important information needs to be sent a message is written on to a very small piece of paper and it is attached to the pigeon leg.The pigeon is then released and files home.The person back at the pigeon home will see the pigeon return,read the message and pass the information on to the person it is meant for.

- The letter, which was replaced with fax and e-mail consecutively, used to be a common means of communication as well. People needed to send their messages further away and faster as the world population increased and started to be globalised. This method has influenced the methods of communication.

- A Pager is another means of communication in ancient times.A pager is a small wireless telecommunication device that receives and displays alphanumeric message and/or receives and announce voice messages.One-way pagers can only receives messages,while response pagers and two-way pagers can also acknowledge,reply to,and originate message using an internal transmitter.This type of device is convenient for people expecting telephone calls,but who are not near a telephone set to make or return calls immediately.

❖ **PRESENT GENERATION:**
- Today, we use telephones, mobiles, text messages, e-mail, internet chat programmes as oral and literal ways of communication. The inventers and producers are aiming to develop faster, cheaper, smaller- sized, multi-tasking gadgets for communication. The communication technology has been changing to

match our needs. However, the means of communication also shapes our life styles.   Mobiles have been the most important things to carry after the identity card, the keys and the wallet.

- Smartphones seem to be in the first category.Products like the Apple iphones and Geogle's Android operating system have pushed the smartphone out of the world of gadget geeks and into the mass market.

- In the 2010,the first 4G smartphone for a major carrier in the United states made appearance.It was the HTC EVO 4G,running on Sprint's WiMAX network.The 4G network allows for faster data transfer speeds than other network.

- The internet will play an increasing role in communication.Voice over protocol(VoIP) already plays a large role in several communication products and services.

- Sites like Twitter , Facebook,Whatsapp,Hike and Messenger etc allow users to communicate with networks of people.With the rise of the web ,people now have a platform from which they can address the world.In the past,only celebrities and politicians could address so many people at one time.

- Now,anyone with an internet connection can do the same thing.This may lead to changes in everything from entertainment to politics.Using the Web as acommunication tool,people with aspirations may be ableto find an audience more easily than ever before.

❖ **FUTURE GENERATION:**
- saAnd the future? It is not difficult to predict the future of communication.The trend of mobile,multi-tasking,wireless technology seems to continue to improve.HDTV's,hologramic simulators are the clues for possibility of image transfering or the matter transferring at the speed of light in the future.We will be transferred to communicate our own messages to other places in an instant   one day.Who knows?.

- .In the future we shall probably have micro-chips installed in our brain making it easy for us to communicate (and call) each other and search the web quickly finding out what you need.

- The future communication technology will have a great impact on our life in the future ,twice as much as it does nowdays.In the not-so-distant future we will be able to converse with people who are halfway across the world as if they were right next to you.

5. **UNDERSTANDING NEEDS OF MODERN BUSINESS COMMUNICATION:**
   Today, e-mail is not a trend but an established type of communication that is deeply integrated with our communication and business processes. Although "paperless office" and telephone cost savings sing this technology have been realised, communication in companies significantly increased because we spend less time and less cost of transport information point A to point B.
   What is the relationship between technologies, such as the Internet, e-mail, and the phone and the information processing and collaboration for business?

The very same question is asked; how can we make cooperation within and outside companies more efficient?

How can we communicate easier and quicker ? Can companies achieve their goals more easily with these tools? Are there ways to avoid/ reduce costs to increase savings? Can we make it easier to deal with this knowledge change? What potential gains and advantages exist here for the companies? What kind of changes affect the person who has to implement them? How can in-house projects be realized in order to improve the communication?

To answer these question, it is important to look at the communication trends in recent years. In the past 5-10 years, with combined usage of previously developed and established milestones in communication technology, the internet and the telephone, we were able to benefit from efficient client information while constantly developing communication technology

Wi-fi, which has only existed for several several years as a standard in companies and in public places such as airports, cafes, and so on, is now used by nearly all mobile communications devices. Wi-fi allows us to communicate with words and images wirelessly to the internet/ local area network.

6. ADVANTAGES OF PRESENT COMMUNICATION TECHNOLOGY:
   i)   Easy Access To Information.
   ii)   Full potential.
   iii)   Improved communication.
   iv)   The convenience of traveling.
   v)   Improved housing and lifestyle.
   vi)   Improved entertainment.
   vii)   Efficiency and productivity.
   viii)   Convenience in education.
   ix)   Social networking.
   x)   Changed the health industry.

7. DISADVANTAGES OF PRESENT COMMUNICATION TECHNOLOGY:

   i)   Increased loneliness.
   ii)   Job loss.
   iii)   Competency.
   iv)   World destruction weapons.

8. BENEFITS OF UNIFIED COMMUNICATION:

Unified communications offers a measureable benefit for companies by value-enhancing usage to allow easy communication combined with simultaneous exchange of information among users in their daily communication.

To further explain the term unified communication(UC) at this point, the word unified means to bring everything together in real-time communication (RTC). In contrast to unified messaging (integration of telephony, fax, and voicemail), the idea behind unified communications is a merger of all available communications services, especially instant messaging systems (which are the integration with presence features) to facilitate the accessibility of communication partners.

The further integration of this technology in our work and business processes is an important focus and also increasingly vendors and manufacturers. Also note that the possibilities of unified communication from the portal and social networking platform technologies have also increased. These platforms allow not only the exchange of personal and business- related information, but also the integration and availability of further real time communication and collaboration adds-on like instant messaging, document-sharing, internet telephony and even integration with line of business applications.

Social networks offer an important platform for product information ns sales. International studies have shown that in future, more products and services through social networks and platforms can be distributed and rated, just like departmental stores or shops.

The technology allows us to communicate with "friends" and contacts about the quality of the product and to write a review providing information on the product. This is only one example of social networks. Another good example is product marketing. How companies provide information about their services and products changed completely with development of social networks.

Other trends include increased networking with business applications for companies. Many manufacturers and software companies also increasingly after their solutions to integrate and coexist with social platforms. For e.g. Microsoft,cisco, and IBM offer social networks in its collaboration solutions. They are simplified to integrate communication, information, and contact database. It will be no the desktop and office computers will also be further extended to mobile devices such as tablets in the near future.

9.   THE DIFFERENCE BETWEEEN ANCIENT AND MODERN MEANS OF COMMUNICATION:

Ancient means of communication	Modern means of communication
1.They used very less technology and depended upon manual work.	1. They use modern technology like internet, fax etc.
2.They were slow and message used to take time to reach the recipient.	2.They are very fast and in some case instantaneous like in case of SMS.
3.The options available were very few like postcard,letter,telegram.	3.A lot of option is available now like email,SMS ,online chat etc.
4.They were not good for long distance or very long distance communication.	4.They are good for long distance communication.

Table 1

"THE ART OF   COMMUNICATION IS THE LANGUAGE OF LEADERSHIP''

10.CONCLUSION:

At the end I just want to conclude that communication technology helps people in many ways. The invention of new gadgets such as mobile phones made communication easier by allowing people to communicate from anywhere at anytime throughWHATSAPP,FACEBOOK,TWITTER,HIKE.MESSENGER,INSTAGRAM etc.and this has made the life more convenient. Although communication brings a lot of benefits,but have disadvantages too. So, people must responsible while using the communication technology properly. In addition, the communication technology had a major impact on the world as it taken over replacing a lot of jobs. I believe that communication technology will get better and bigger more each days.

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