



DIGITAL COMMUNICATION: EMPOWERING PEOPLE GLOBALLY AND ENHANCING ACCESSIBILITY

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ABSTRACT

We are living in an information age where human have always been developing new technologies for communication. Digital technologies have revolutionized communication in the modern world. The internet and cell phones are two of the most prominent examples of the influence of the information age but there are many other types of digital communication technologies which we will discuss in full research article.

Digital communication simply means devices communicating with each other through digital signals. The signals are digitized and then the information is transferred through these digitized signals from source to destination. People in today's world are leveraging this digital mode to save time, energy & money for any form of communication. At the same time, they are able to receive information on the go which further enables their willingness to enhance their knowledge - one of the key elements in empowering people.

Why digital communication or digitization is needed? How digital communication is empowering people through strong social networks? And many more related aspects will be explained & discussed in the full paper.

KEYWORDS: Digital Communication, Technology, Digital Signals, Digitization, Social Networks, Satellite Communications

INTRODUCTION TO DIGITAL COMMUNICATION

Digital communication simply means devices communicating with each other through digital signals. The signals are digitized and then the information is transferred through these digitized signals from source to destination.

The usual communication that occurs in our day-to-day life is in the form of signals. These signals, such as sound signals, generally, are analog in nature. When the communication needs to be established over a distance, then the analog signals are sent through wire, using different techniques for effective transmission. The world is observing a gradual transformation on the mode of communication in all aspects. The internet and cell phones are two of the most prominent examples of the influence of the information age but there are many other types of digital communication technologies. The social media today is an integral part of the internet and it is even argued that it is the current climate of the internet as a whole. Social media is taking over, the only way for a business to remain relevant is to adapt to this emerging and demanding platform. A strategic social media app developed by any business can give it an edge over the competition, giving it a sustainable future for business and growth.

Research Objectives

1. To observe and understand the new and emerging Digital Communication media.
2. Describe the existing social and networking media.
3. To identify the unique features of social media that have established in digitised communication.

REVIEW OF LITERATURE

"Digital Empowerment as a process for Enhancing Citizens Participation" by MAARIT MAKINEN talks about Digital Empowerment where empowerment is used in the sense of enablement – enabling people to do what is important to them, and enabling people to grow as competent subjects who have control over their lives and surroundings.

Digital empowerment: whose empowerment? On the limit of gender and sexuality in the digital age essay by Paul Nixon and Isabel K. Dusterhoft talks about the gender possibilities that change as per the media consumption and usage of social media. This study collects the distinguished features to promote sharing and caring via digital communication media.

RESEARCH METHODOLOGY

The research article is a descriptive study based on secondary data from books and websites, that are able to create a clear picture of the present scenario for further individual research.

FINDINGS:

The internet and Email

The Internet is one of the greatest creations and gives everyone in the world with instant access to an endless supply of knowledge and entertainment. This is a giant library where you can find information, keep in touch with people, read the news, follow your hobbies, watch TV programmes, shop, compare prices, pay bills and contact customer service offices with queries or complaints. Information on the internet is contained in websites and on webpages. The internet is a

worldwide network of computers all connected to each other by telephone lines, cables and satellites. You can access the web from many mobile devices. To connect, you need an 'Internet Service Provider' or 'ISP'. Your mobile company, home phone, cable television provider or a supermarket chain can offer you an internet connection. A broadband internet connection also allows you to access the internet.

Electronic mail or 'email' is a quick way of sending messages to people anywhere in the world using IT devices. You send an email to another person's email address. You can also send an attachment, for example, a file or photos with your message. Key benefits and features of using email

- It's quick – your recipient receives your email as soon as they go online and collect their mail.
- It's secure.
- It's low cost.
- Photos, documents and other files can be attached to an email, so that more information can be shared.
- One email can be sent to more than one recipient at a time.

Cell Phones

The earliest generation of handheld mobile telephones relied on the analog communication technology of the conventional phone network. The first phones using digital communication, known as 2G phones, appeared in the early 1990s. Digital phone technology developed rapidly after that. The first text message was sent in 1993, and the transmission of other digital content, such as ringtones and advertising, followed shortly after. In 2001, 3G digital phone communication arrived, providing faster transmission and making broadband communication practical for multiple media such as voice, Internet and GPS. The 4G phones appeared later that decade, offering digital communication 10 times faster than earlier technologies.

Digitization of Television

The transition from conventional to digital television technologies made high-definition television possible and established the television as more than a simple receiver of transmitted signals. Many digital TVs are multimedia devices that display television programming, games, photographs and on-demand movies, stream Internet content, play music and handle recorded media like CDs and DVDs. As televisions become more interactive, they are evolving into true two-way digital communication devices.

Other Electronic Communication

Digital communications have become ubiquitous in modern society and encompass a wide variety of technologies. Remote controls, keyless entry devices, walkie-talkies, Bluetooth earpieces, GPS satellites, cash registers and credit cards are among the many technologies that communicate digitally with people and with other devices. Futurists have coined the term "The Internet of Things" to refer to the trend of enabling thousands of types of devices, from light bulbs to washing machines, with digital communication capabilities.

Physical Digital media

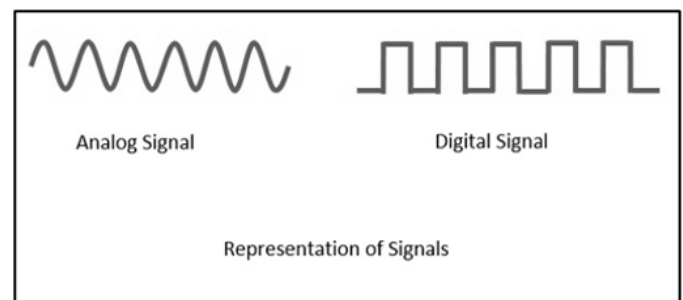
We store digital data on many types of physical media, including CDs, DVDs, flash drives, tape and compact memory chips. Every time you hand a friend or colleague a file, whether you transfer it electronically or pass along a DVD, you are engaged in a form of digital communication.

There are so many advancements occurring in communication technologies as we all know human have always been developing new technologies for communication, going back to the printing press and even the act of writing itself. But the past 120 years, or so, has been especially rapid technological advancement in communication from the first telephones through the modern internet.

Need of Digital Communication or Digitization

Traditionally analog signals were used for long distance communication. This mode of communication faces many problems and risks in the form of signal loss, distortion, interference, security breaches etc. To tackle these problems digital mode of communication is developed which has minimized the earlier problems to a certain level.

The following figure indicates the difference between analog and digital signals. The digital signals consist of 1s and 0s which indicate High and Low values respectively.



Digital communication empowering people through strong social networks

As we now have fair bit of an idea on what Digital communication is, here we come on another aspect of communication which has become part of our lives - The social networking. In recent years, social networks have become very famous because of the growing affordability and spread of internet enabled devices such as mobile device, computers and other more modern innovations such as internet tablets. We must say, digital communication is empowering people through strong social networks. There are so many sites we are using in our day to day life and these social networking sites are the part of our daily routine. Those are, Facebook, whatsapp, twitter, instagram, linkedin, snapchat etc. Below are little descriptions about the top social networking sites people are using to keep up to date and digitized themselves-

Facebook: Most of us already know that Facebook is the top social network on the web. It is the most popular social networking site on the web with about 2 billion monthly active users and more than one billion that log on daily (according to Facebook itself).

Twitter: Twitter is known as the real-time, public microblogging network where news breaks first. Most users love it for its short message limit (now 280 characters) and unfiltered feed that showed them absolutely everything in the form of tweets.

LinkedIn: LinkedIn is a social network for professionals. Anyone who needs to make connections to advance their careers should be on LinkedIn. Profiles are designed to look sort of like extremely detailed resumes, with sections for work experience, education, volunteer work, certifications, awards and all sorts of other relevant work-related information.

Instagram: Instagram has grown to be one of the most popular social networks for photo sharing that the mobile web has ever seen. It's the ultimate social network for sharing real-time photos and short videos while on the go.

Pinterest: As the fastest standalone site ever to reach 10 million monthly unique visits, Pinterest's beautiful and intuitive pinboard-style platform is one of the most enticing and useful resources for collecting the best images that can be categorized into separate boards.

Tumblr: Tumblr is an extremely popular social blogging platform that's heavily used by teens and young adults. Like Pinterest, it's best known for sharing visual content.

Snapchat: Snapchat is a social networking app that thrives on instant messaging and is totally mobile-based. It's one of the fastest growing apps out there, building its popularity on the idea of self-destructing "snaps."

Reddit: It is a very strong forum site and happening place on the web. It has a very strong and smart community of people who come together to talk about the topics they love while sharing links, photos and videos relevant to the subreddit topic thread where they're participating.

Flickr: Flickr is Yahoo's popular photo-sharing network, which existed long before other popular competing networks like Pinterest and Instagram entered the social photo sharing game. It's still one of the best places to upload photos, create albums and show off your photography skills to your friends.

Kik: Kik is a free instant messaging app that's very popular with teens and young adults. Users can chat with each other one-on-one or in groups by using Kik usernames (instead of phone numbers). In addition to text-based messages, users can also send photos, animated GIFs and videos to their friends.

Periscope: Periscope is all about live web video broadcasting from your mobile device. It's a Twitter-owned app that's had its fair share of rivalry against another competing broadcasting app called Meerkat.

Medium: Medium is perhaps the best social network for readers and writers. It's sort of like a blogging platform similar to Tumblr, but features a very minimal look to keep the emphasis on content that's shared there.

SoundCloud: SoundCloud is the world's most popular social network for sharing sounds. Most users share music they've made or podcasts they've recorded.

Tinder: Tinder is a popular location-based dating app that matches you up with people in your area. Users can set up a brief profile that mainly highlights their photo, and then anyone who's matched up to them can anonymously swipe right to like their profile or left to pass on it as a match.

WhatsApp: Currently the most popular instant messaging provider worldwide, WhatsApp is a cross-platform app that uses your internet connection or data plan to send and receive messages. Users can send messages to individuals or groups using text, photos, videos and even voice messages.

Slack: Slack is a popular communication platform for teams that need to collaborate closely with one another. It's basically a social network for the workplace.

Google+: Google Plus (also known as Google+) is a social networking service from Google. Google+ launched with a lot of fanfare as a possible competitor to Facebook. Google attempts to differentiate Google+ by allowing more transparency in who you share with and how you interact. It also integrates all Google services.

Reasons identified for people to adapt to Digital communication

There is no any doubt that people have made their life completely technology dependent and without this people cannot even imagine their normal day to day activities. Below are some of the key benefits that the digital communication is bringing to our normal lives:

- Digital communication can be done over large distances though internet and other things.
- Digital communication gives facilities like video conferencing which save a lot of time, money and effort.
- It is easy to mix signals and data using digital techniques.
- The digital communication is fast, easier and cheaper.
- It can tolerate the noise interference.
- It can detect and correct error easily because of channel coding.
- It has excellent processing techniques for digital signals such as data compression, image processing, channel coding, equalization etc.

CONCLUSION

The overall theme of this study is how digital communication is empowering people. This paper has discussed many important sides about digital communication including types, digitization, social networking sites and benefits. As we all know that digital methods of communication are faster, more versatile, practical and streamlined, so it is perhaps not surprising that once the technology became available we began quickly moving into the digital age. We cannot deny that at this point we need digital communication. We need a platform that can connect us with anyone without exception. We can use our digital communication for the good. We can stay in closer contact

with everyone. That's why digital communication is important, because we need it in this era. In fact, according to World Internet Usage, the internet is used by about 2 billion people daily. Most people all around the globe use digital media which symbolizes that the digital communication is playing a vital role in empowering people and making them more competitive, also converting them to Global citizens.

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