

Uses and Effects of Information and Communication Technologies in Interpersonal Communication: A Study in Delhi

THESIS

Submitted To
BABASAHEB BHIMRAO AMBEDKAR UNIVERSITY
(A Central University)
Lucknow

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2020



I DEDICATE THIS THESIS

To My Parents

I am feeling proud in dedicating this

Research work to my

Dear Mother

Mrs. Sheela Rani and to my

Respected Father Mr. Shambhu Kumar



DECLARATION

I hereby declare that the thesis entitled “Uses and Effects of Information and Communication Technologies in Interpersonal Communication: A Study in Delhi” has been prepared by me for the award of “Doctor of Philosophy” under the supervision of Dr. Rachana Gangwar, Assistant Professor at the Department of Mass Communication and Journalism, at Babasaheb Bhimrao Ambedkar University (A Central University), Lucknow, and is also approved by Department Research Committee (DRC).

I further declare that to the best of my knowledge, no part of this thesis has been formed the basis for the award of any degree, diploma and fellowship previously. The material embodied in the present work is based on original work. I also undertake that the thesis is essentially free from all kind of Plagiarism.


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CERTIFICATE

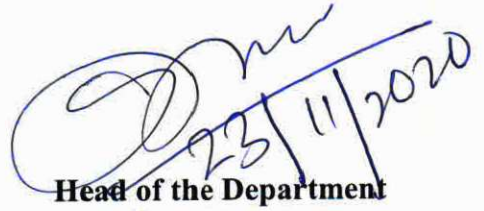
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This thesis submitted to Babasaheb Bhimrao Ambedkar University, Lucknow satisfies all the requirements as stipulated in the Doctor of Philosophy (Ph.D.) regulations -1999 as amended in 2008/2010/2013 and it is fit for submission and evaluation for the award of the degree of Doctor of Philosophy of the University.



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PREFACE

This thesis examines the emergence of human development of communication through information and communication technologies. The ability of information and communication technology (ICT) to transform our society is evident. There has been increasing use of social networking sites and other smartphone apps. Social networking is a new phenomenon consisting of web-based interactions with websites and contact with others through mobile phones. Over the past decade, social media such as Facebook have played an important role in socializing and establishing relationships through Technology-mediated communication. Now Individuals can broaden the boundaries of traditional forms of communication and use technology to meet online strangers to share interests. Due to the convenience and flexibility of this channel, ICTs are effectively used to organize different types of communication (Verbal and Non-Verbal).

With the invention of non-verbal cues, ICTs also made non-verbal communication easy and convenient. Non- verbal cues (emoticons and emojis) are becoming popular in almost all types of text-based communication through technology. The role of emojis are continuously growing, and they appear as patterns of digital written communication. Various scholars and theorists described emojis as attracting images, nonverbal cues, paralinguistic symbols, and widely accepted modes of communication in popular discourse. Some of them, Like Steinmetz and Evans, are of great value and suggest that it will evolve like a new universal language. The development of technology is also changing the culture of youth communication. Youth culture is identified as the society in which young people communicate and follow their own interests. It focuses on how the language of text messaging and instant messaging are shaped by texters actively to fulfilling interpersonal goals and interpersonal communication. This thesis also reports a study on textisms (abbreviations) to explore linguistic features that define textisms as a language variety. This study examines the various types and structural designs of the textisms' words.

The research shows that emojis are not only indicating emotion of users but, they also fulfill many other communication functions by examining multiple extracts from different emojis. The focus of the study was to find out the reason for the use of ICTs for Interpersonal communication and to know the preferred medium of the

individuals use for maintaining interpersonal relationships. The results of this study suggest that individuals most use technology-mediated platforms than face-to-face communication. Besides, this study found that text messaging and instant messaging do replace talk on the phone and face-to-face communication because text messaging and instant messaging are having interesting and attractive features. Text messaging is very easy to operate at any time.

The purpose of this study is to know the excessive and uncontrolled use of the internet, and how social media brings what kind of behavioral changes and social changes. The study found that it is a cause of anxiety, stress, and depression. It also found that it is also affecting academic and work performance. The research has taken a mixed approach of which combines the collection of data through an interview schedule. The researcher has used statistical software (SPSS) and excel to analyze the data. The study found that ICTs have helped improve interpersonal relationships among the respondents. The research sphere constitutes two major variables, which include information and communication technologies and interpersonal communication. Therefore, all chapters of the thesis are based on the relevant idea about the variables. The first chapter consists of an introduction and a methodology Part. The introduction part provides an overview of various aspects of the research study, for example, Information and communication technologies, interpersonal communication, techlingo such as emoticons, emojis, and textisms. The methodology part outlined the methodological approach to the analysis. Chapters two have been constituted reviews of different literature-based study which include the role of ICTs in interpersonal communication, effects of ICTs on individuals' behaviors and theoretical perspective of the research. Chapter three gives an overview of interpersonal communication, whereas chapter four is based on the role and effects of ICTs on Interpersonal Communication, Face-to-Face communication, and individual behaviors. Chapter five explores the Forms, Frequency and Functions of Non-verbal Cues in interpersonal communication. In addition, chapter six explores the uses and role of textisms in interpersonal communication. Chapter seven provides details of the various data extracted and their interpretation. Chapter eight focused on the findings and recommendations of the research study, whereas chapter nine is based on the executive summary of the research and concluding ideas derived from analysis of data.

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ABBREVIATIONS

Trems	Full Forms
ARPANET	Advanced Research Projects Agency Network,
BBN	Bolt Beranek and Newman
ICTs	Information and Communication Technologies
TMC	Technology-Mediated communication
CMC	Computer-Mediated communication
MMC	Mobile-Mediated communication
SNSs	Social Networking Sites
SMS	Shots Message Service
IPC	Interpersonal Communication
FTF	Face-to-face communication
<i>HPC</i>	<i>Hyperpersonal Communication</i>
IMs	Instant Messaging
EMC	Electronic- Mediated Communication
FB	Facebook
NVC	Nov-Verbal Cues
TG	Telegram
MIT	Massachusetts Institute of Technology
MRT	Media Richness Theory
UGT	Uses and Gratification Theory
FOMO	Fear of Missing out
ENIAC	Electronic Numerical Integrator and Computer
IMP	Interface Message Processors
DARPA	Defense Advanced Research Projects Agency



CHAPTER ONE

Introduction



CHAPTER ONE

Introduction

1.1 Introduction of the Research study

Information and Communication Technologies has a vast impact on our daily life, it has changed the whole scenario of the world. After the advent of smartphones, we are holding whole media as a device in our hands. We can say this media convergence has created a new type of society, which is thoroughly dependent on ICTs. The use of communication technology provides a new route for interpersonal communication. This study proposed to examine the uses and effects of information and communication technologies (ICTs) in Interpersonal Communication. The aim of this study is to investigate the role of communication technologies in interpersonal communication (formal and informal communication). It is observed that ICTs are playing a vital role in communication process. ICTs are helping people to maintain their social, professional and personal relationships. The research focuses on the use and effects of ICTs that are associated with interpersonal communication, which explored by exploratory, descriptive, and survey methods.

The study explored how ICTs are changing the tools and techniques of interpersonal communication and replacing face-to-face communication. This focuses on the reason behind the changes in communication patterns. The emergence of the digital age has shifted the communication method from face-to-face communication to computer or Smartphone mediated communication. Digital postures 🙋, gestures 👍 and facial expressions 😊 are the strength of the communication method (Turnbull, 2010). Interpersonal interaction involves using either verbal or nonverbal language to communicate messages and emotions between two or more people. Interpersonal communication is not just what is said, but it also, a tone of voice, facial expression, gesture and language of the body etc. By nonverbal behaviors, someone can communicate signals that display their attitude, facial expression and dress to make sense of the other's position and emotional status 😊. In nonverbal behavior, people use gestures, posture and expression to describe each other's position and emotional state (Turnbull, 2010). This ability provides a foundation from which symbolic communication can arise, but how such a transition would have taken place, which is not fully examined yet. This study examines and explains how that transition occurred.

In addition, it has been addressed the emergence of non-verbal cues in human communication and the uses and the importance of Non-verbal Cues (Emoticons and Emojis) in interpersonal communication. Further, it deals with the various paradigms of Non-verbal cues as universal languages. It explores the aspects of the non-verbal cues and perspective of the replacement of words and sentences during text communication.

The popularity of technology among users makes Non-verbal cues (emoticons and emojis) special and attracts academic attention. Some of these studies have focused on emoticons as an indicator of emotion, and some of them studied the effect of emoticons on the perception of text messages followed by email, online chat and instant messages, website message boards, and SMS. Others focused on gender differences in the use of emoticons. A few focused on how emoticons are used in naturally occurring online communication. No one study has done on emoticons as their new version as emojis in the Indian context. Apart from this, it has studied in the field of English, Sociology, and Computer Science. This is the first study done in the field of communication and in the Indian context.

This study examines the challenge, which we are facing in our linguistic structure like textisms and spelling variation. The study explores the various paradigms and aspects of textisms (lol, cu, kk, omg) as communication patterns. Research has explored the forms and functions in detail of textisms, mediated writing periphery, cultural transmission of text, and aspects of the linguistic corpus on text-based. Text communication has become quite a trend in communication. Some people use text communication to invite, to say goodnight or they love them, to avoid direct communication, to plan meetings, to connect with friends, family, and others (Leung, 2008). Higher education students frequently use text messaging for communication. The text message is simple, fast, convenient, and easy to use (Grinter & Eldridge, 2001). According to Perry & Lee (2007), “text messaging is displacing face-to-face communication” (Perry & Lee, 2007. p.74). Text messaging is used for convenience, especially among university students. It can also be an addiction. Text can be possible from anywhere, for example, while in the classroom, driving, in the movie theatre, in the school, workplace, etc. (Hemmer, 2009). Functions and usability are the most important determinants for IM (instant messaging) users in deciding their use. Instant Messaging has been found to be very helpful in the case of direct communication, which is not easy or comfortable. More like informal face-to-face communications, Instant Messaging interactions are quick, fast, spontaneous, and contextual. The ability

to enable synchronous communication in a distributed area is very appealing to its collaboration communication (Zhou, 2005). Besides this, it describes the commonly used textisms word and sentence based on related studies. It also explored the structure and construction of textisms and methods and techniques for constructing it.

The study also describes how the use of ICTs does affect individual behaviors. The study observed that spending a lot of time on the Internet could be a cause of anxiety, stress, loneliness and isolation. Nowadays, technology, especially the internet and social networking sites, has become an essential part of our life. Most people in the world today are using the internet and social networking site to connect and communicate at a large level. People are depending on the internet and social networking to maintain their relationships, shopping choices, job vacancies, good humor, educations, learning, making friends etc. More dependency affects human behaviors negatively and positively.

Further, this study also contributes to a detailed description of various behavioral change symptoms such as phubbing, FOMO, Nomophobia etc. which cause heavy and uncontrolled use of the internet and social networking sites. This research looks at the use and effects of the Internet and social networking sites (ICTs) on interpersonal communication. A review of the literature indicates that knowledge of related studies, theoretical framework and method of assessing the research, are focused on the uses and effects of ICTs during communication. The researcher has applied a mixed approach and survey method for data collection. The triangulation method has also been used as a source of data collection. The sample of this is taken from universities/institutes from Delhi. For the qualitative data, the researcher has conducted an in-depth interview.

1.1.1 Background of the study

1.1.1.1 Communication: Definition in the process of terminology

Communication is an inborn ability. It is a continuous process where we involve from our birth till death. Communication is the basic need of human beings to survive. In this research, the researcher has focused on interpersonal communication. The definition of communication has used for this thesis is "Ways of exchanging information between two individuals" (Berman, 2012). Communication is an extremely ordinary term. Cobley and Schulz (2013) pointed out that the meaning of communication is the manner toward utilizing words, sounds, or actions of behaviors to convey feelings to other individuals or possibly share considerations and emotions with

someone else (Cobley & Schulz 2013). The word "communication" has derived from the Latin word "communis" which means "common to all," "to share" or "to be in connection with". In a similar prefix, many other English words such as the words "common", "commune" and "community" have a strong relation to communication (Berman, 2012).

Symbols, sounds, or gestures are non-verbal communication, which plays a very important role in the communication process. In interpersonal communication non-verbal communication plays a vital role, for example when we talk to someone we use both languages oral and non-verbal like paralanguage, gesture, posture, expression, eye expression etc. Being a communicator, it is observed that non-verbal is much effective than oral (verbal) communication. Because it shows the mood and intention of the sender. When we communicate with ICTs then we also use this non-verbal language, which is created by technology.

Such symbols can be significant words, sounds, or other signs. Our dialects are additionally a consequence of thousands of years of long stretches of development from basic sounds made and by our precursors' research in the rainforests of Africa. We are unable to create the simplest societies without communication. Without communication, knowledge and skills cannot be gained and not be transmitted to younger generations. This process is much simplified by the written language. The communication process involves encoding and decoding steps. (Zhu, 2105). Communication is an essential part of our life which has contributed significantly to the information and communication system. ICTs have made the communication system simple and easy, through which one can communicate from one place to another.

1.1.1.2 Information and Communication Technologies (ICTs)

Information and Communication Technologies (ICTs) are broader term, which includes all communication technologies such as the Internet, wireless networks, cell phones, computers, software like middleware, video-conferencing, social networking, other media applications, and services. That enables users to access, transmit, retrieve, store, and manipulate information in a digital form (Techopedia.com). But for this study, the researcher has taken a stipulated definition, *"ICTs refer to all Technology-Mediated Communication techniques that provide platforms for Interpersonal Communication such as a computer, mobile, Internet, and social networking sites"*.

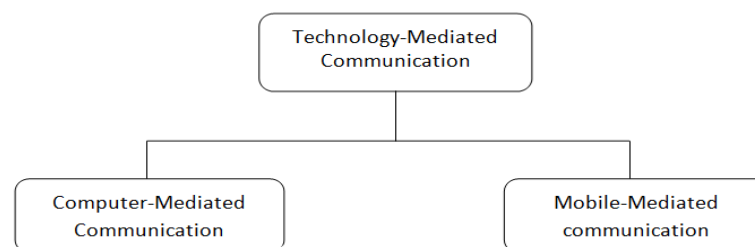
There is a dynamic history of ICTs which explains the process behind the revolution and inventions for it. In the past, a signal room machine that now in our hands used as a digital message. The developments of ICTs have affected our way of communication in a different and advanced manner. According to Bosamia, M (2013) research report, approximately more than 50% of people use different types of devices like smartphones, tablets, laptops, etc. for communication.



Source: Bosamia, M. (2013)

Figure 1.1: Process of ICT's Revolution

ICTs have provided Technology-Mediated Communication (TMC) for interpersonal communication. Technology-mediated communication refers to the term communication that done and controlled by ICTs mediated tools and applications. In this study, TMC has divided into two parts:



Source: self-created

Figure 1.2: Technology-Mediated Communication

Computer-Mediated Communication refers to the term communication between two or more people, which possible by computer technology. In the context of interpersonal communication, it includes e-mail, instant messaging, text messaging, chat rooms, all social networking sites, online discussion boards, and other virtual world interaction patterns. Solomon and Theiss (2013) said that computer-mediated communication provides us a platform to create a personal bound of time and space. Generally, computer-mediated communication refers to the kind of platform and way that allows people to exchange messages with each other (Solomon & Theiss, 2013).

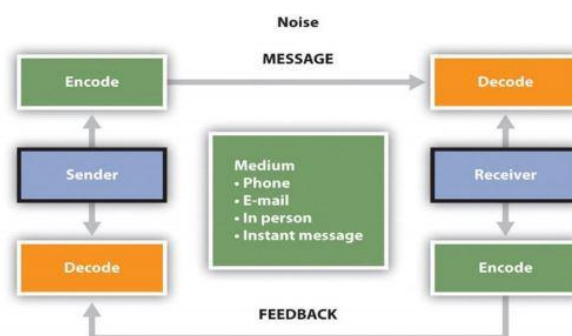
Mobile Mediated communication refers to terms of communication between two people, which possible by mobile phones such as calls on the phone, SMS (Short messaging service), instant messaging, social networking sites, and other virtual world interaction patterns. Computer-mediated communication offers a different type of

advantage for maintaining an interpersonal relationship according to Braithwaite et al. (1999) & Mc Kenna et al. (2002)(Solomon & Theiss, 2013).

1.1.1.3 Interpersonal Communication (IPC)

Interpersonal Communication is an essential part of human interaction. Roloff (1981) describes it as a "symbolic process by which two people, bound together in a relationship, provide each other with resources or negotiate the exchange of resources" (Roloff 1981, p.30). Interpersonal Communication is to exchange of information and emotions between two individuals by using oral and nonverbal messaging. For communication, interpersonal communication is not just what is express by speaking, but it also expressed by paralanguage, facial expressions, gestures, body language (digital 🙋) etc.

The message means nonverbal signals, such as face-expression (digital 😊), paralanguage, and body language (digital 🙋) as speech or Information (Chasombat, 2014). Many communication scholars have argued on the aspects and definition of Interpersonal Communication in their ways. Therefore, for this study researcher has followed Griffin's definition of interpersonal Communication. According to Griffin, interpersonal communication refers to the transactional process for sharing meaning and establishing relationships with others (Shannon, 2013). The following figure shows the process of interpersonal communication between sender and receiver:



Source: http://journals.uokufa.edu.iq/index.php/kufa_arts/article/view/7700

Figure 1.3: Interpersonal Communication Process

Direct or mediated interpersonal communication can take place. Direct interpersonal communication requires that the participants are personally present, besides of this, mediated interpersonal communication is technologically mediated and can be achieved without a face-to-face context, for example, TMC platforms. The current study focused on mediated interpersonal communication.

Before personal computers, the Internet, and mobile devices, people have developed and maintained relationships through real-life meetings and personal communication. Interactions in real life are essential steps to develop relationships and will always remain. With the invention and innovation of the technology era, where people easily have started to access and exchange information online, which changed the entire communication process changed. Mobile devices have become a medium of communication, knowledge, and entertainment among individuals. Society shifted from face-to-face interaction to social-networking activities through computers and mobile devices. Simultaneously people started using computers and mobile devices to maintain interpersonal relationships and other activities.

1.1.1.4 Technology-Mediated Communication (TMC)

The use of advanced technologies, such as technology-mediated communication has led to the development of human communication. It has played an enormous role in the development of social communication amongst its other functions. TMC has enabled people to expand socialization beyond traditional communication methods. For example, this helps individuals to share ideas and emotions online. It also provides opportunities to interact with other strangers online.

In this study, the stipulated terms of Technology-Mediated Communication (TMC) refer to human communication, which done and facilitated by technological tools and applications, like talk on the phone, e-mail, social networking sites, text messaging, instant messaging, hypertext, textisms, and other Internet-based activities (online learning, shopping, and other forums).

The telephone is an old TMC medium, which has facilitated long-distance communication since its invention since the 1870s. Aaron (1971) cited in his study that some people predicted that the world would become smaller due to TMC, and contact will increase among people of all countries. Other researchers have predicted that the telephone would bring people much closer to their personal charm and common interests that would 'cross the boundaries of residence' (Aaron, 1971). TMC has exceeded expectations and elevated communication to unimaginable levels. It provides mutual business communication at the national and international levels. International relationships are maintained through ICTs that is improving cross-cultural exchange and giving benefit to our nation. Thus, CMC is significantly affecting social participation in maintaining relationships.

1.1.2 Techlingo: A pattern or forms of Text Communication

"Techlingo" is a technology-facilitated form of text interaction, which is done by communication devices. It is a technology-generated form of interaction. It includes all signs, symbols and pictographs, which made text interaction possible such as punctuation marks, commas, emoticons, emojis, and stickers, animated and moving images. Besides, "Techlingo" is also a "generation text" or "morden text" of text-based interaction. It is a traditional form of shorts hands, which became in the technology era new patterns of communication. In American accents, it is stylish and shortcuts forms of tech-languages. It is also a user-generated form of text communication. This also includes Textisms and its various forms.

1.1.2.1 Emoticons (:-)) and Emojis (😂)

The emoticon is an image of the expression of the face using characters. It is like punctuation marks, numbers, and letters, which typically used to express a person's feelings or mood, and is also used as a time-saving process. In 1982, Scott Fahlman had written the first ASCII emoticons, “:-)” and “:-”. However, in TMC interaction, the quantity of emoticons is always small. Most emoticons consist of two characters or more.

Emojis (😊) are picture characters. It is a type of ideogram and smileys, which is used for digital interpersonal communication by ICTs device on different platforms. It is modern and upgraded version of emoticons means actual picture instead of typographic. Basically, it is a small digital image or symbol which is used to convey an idea or feeling in digital communication. All Non-verbal cues (emoticons and emojis), their forms, functions, and the reasons for frequent use of it are discussed in chapter five.

1.1.2.2 Textisms

Textisms are defines as the language, used in texting and chatting, which includes the use of abbreviations, single letters, and symbols. It is an unconventional spelling, that is used typically in texting messages that range from lexical to morpho-syntactic to orthographic features including, but not limited to, abbreviations.

It is a traditional form of shorts hands, which is becoming in the technology era new patterns of communication. According to Sutherland, (2002) young users call it "generation text," "generation grunt" and "net generation," while SMS has a link to the definitions such as "bleak, bald, sad shorthand." It includes various forms such as

Alphanumericism (cu l8r, g8t), Shortenings (sun, feb), Initialisms, and Acronym (OMG, BF, LOL), Accent stylizations (wanna, gonna, dat), etc. All Textisms forms, their structures, and the reasons for frequent use of it are discussed in chapter six.

1.1.3 Motivation of the Study

The researcher has experienced that ICTs are advanced and helping us in every aspect of our life. The advancement of technology is the motivation of the study. It is also based on the transformation of new modern and innovative methods for communication. The use of Internet-based Communication provides a new route for interpersonal communication. Through which people are maintaining their social relations and personal relationships.

Second, some researches revealed that Non-verbal cues are becoming a new language pattern of communication in the global world. It is replacing face-to-face communication. Third, different types of textisms styles that frequently used by the people during text messaging and instant messaging; and are becoming the language in the current time. All the above reasons are behind the interest and motivation of the researcher to select the research problem. In addition, changes in interpersonal communication techniques and the effect of ICTs on the behavior of individuals have also motivated the researcher for this study. Through this study, the researcher has explored various ways and patterns of interpersonal communication, which are provided by the ICTs.

1.1.4 Research Problem of the Study

Communication is an inborn quality, and important for society and social life. This is a universal feature of human beings. These days' people totally depend on ICTs for communication and other activities. The progress of ICTs is changing the methods and patterns of interaction and communication. This study has conducted to explain the uses and effectiveness of Information and Communication Technology in Interpersonal Communication. The purpose of this study is to examine how technology-mediated communication plays a role in our interpersonal relationships at a personal and professional level. Through this study, the researcher focuses on the role of phones, e-mail, instant messaging, text messaging, and social networking sites (Facebook, Whatsapp, etc.) in maintaining interpersonal communication, which is replacing face-to-face communication.

The main focus of this study is that this research highlights the Non-verbal cues, which are taking the place of words and sentences in a virtual world and present text

communication. Actually, non-verbal cues are new and changed patterns of text-based interpersonal communications, which are changing the pattern of text communication and social interaction.

The research also tries to study the textisms (abbreviations, initialism, phonetic words, alphanumerism etc.), which often use in text communication. So it becomes important to find out whether it is frequently used by the users as communication patterns or not. It is also necessary to find out, what is the reason for the use of textisms. In the current era of modernization, people depend on ICTs for information, communication, entertainment, persuasion, and even maintain their daily lifestyles, such as education, teaching, work, shopping, etc. The greater reliance on this and the frequent use of ICTs will bring what kinds of behavioral changes in individuals is also need to find out.

1.1.5 Significance of the Study

The study looks at the uses and effects of Information and Communication Technologies in Interpersonal Communication among the users; its finding is relevant because it informs the entire user to the effect of ICTs in interpersonal relationship and individuals behaviors. Thus, keeping role of ICTs in Interpersonal communication, the study has following significances:

1. The findings of the study will make aware to its users about the influence of information and communication technologies in interpersonal relationships.
2. The study will help in knowing various types of nonverbal cues. This will shed light on the reason why people use Non-verbal cues during text messaging and instant messaging. This study will also help to understand how do nonverbal cues affect text communication and replace words and sentences or not.
3. The research will help to understand that how and why does the mediation of technologies affects face-to-face communication and has become important for interpersonal ties.
4. This study will explore and aware people about the various modern and innovative tools, frequently used by the people.
5. It will make aware of the patterns and forms of textisms, which has become a new and stylish language for text messaging.
6. The findings of this study will help to understand the impact of uncontrolled use of social networking sites and the Internet on an individual's behaviors.

1.1.6 Aim and Objectives of the Study

The main aim of this study is to explore the effects of ICTs on communication patterns. How are ICTs changing the ways of communication and replacing face-to-face (real) communication. What is the role of ICTs in replacing words and sentences during text (messaging, chatting etc.)? Besides, this study aims to explore how does ICTs effect and change individuals (users) behavior. The following are the specific objectives of the study:

1. To study the role of ICTs (various tools and techniques) in maintaining interpersonal communication among the respondents
2. To study the uses and effects of ICTs in the context of interpersonal and face-to-face communication
3. To study the association between the use of digital Non-verbal cues in place of words and sentences and gender among the respondents
4. To study the association between the use of Textisms in place of full words and sentences and gender among the respondents
5. To study the Influence of information and communication technologies on individuals' behaviour

1.1.7 Hypotheses of the Study

The simpler meaning of the hypothesis is an educated guess based on a previous study created for a study. The purpose of developing the hypothesis is to find out the solution to problems. It gives us the direction to know about the relationships between two variables. It aimed at promoting a critical approach. It allows the researcher to develop a specific direction, as well as a better understanding of the study topic. It also assists in the thorough and focused analysis of the collected data. The following are the specific hypotheses of the study:

- H1:** Information and communication technologies play a role to maintain interpersonal communication.
- H2:** Individuals frequently use digital Non-verbal cues in place of words and sentences.
- H3:** Individuals frequently use various types of Textisms forms in place of full words and sentences
- H4:** Text messaging and chatting are more convenient rather than talking on the phone or face-to-face communication.
- H5:** Information and communication technologies are affecting individuals' behaviour.

1.1.8 Stipulated Definition of Terms

In order to understand the terms used in the context of this thesis, the following stipulated definitions are presented:

- **Information and Communication Technologies**

Information and Communication Technologies (ICTs) refers to all Technology-Mediated communication techniques that provide platforms for Interpersonal Communication as computer, mobile, Internet, and social networking sites.

- **Technology-Mediated Communication**

Technology-Mediated Communication (TMC) refers to human communication, which done and facilitated by technology tools and applications. This involves Computer-Mediated communication and Mobile-Mediated communication on all platforms and patterns of communication. Examples include a talk on the phone, e-mail, social networking sites, text messaging, instant messaging, hypertext or Hyperpersonal communication, textisms, and other Internet-based activities (online learning, shopping, and other forums).

- **Computer-Mediated Communication**

Computer-Mediated Communication (CMC) refers to the term communication between two or more people, which is possible by computer technology.

- **Mobile-Mediated Communication**

Mobile-Mediated Communication (MMC) refers to terms of Communication between two people, which possible by mobile phones.

- **Social Networking Sites**

Social Networking Sites (SNSs) is an internet-based online platform used by people to build informal (social relations) connections as well as formal (professional relations).

- **Interpersonal Communication**

Interpersonal Communication (IP) is defined as the exchange of information and emotions between two people by using technologies-Mediated communication patterns and forms.

- **Non-Verbal Cues**

Non-Verbal cues (NVC) are defined as Communication through wordless visual cues or digital images such as emoticons and emojis.

- **Emoticons**

Emoticons are defined as an image of the expression of the face using characters such as :-), (smiley).

- **Emojis**

Emojis are defined as a small digital image or symbol used to convey an idea or feeling in digital text-based Communication such as  .

- **Textisms**

Textisms is defined as the language used in text messaging and Instant messaging, featuring the use of abbreviations, single letters, inisilism, alphanumeric, symbols, shortening etc. Textisms are lexical shortening of words and sentences. For examples: OMG, lol, g9t, haaaaa, kk, c u, tc etc.

1.2 Research Methodology

This section discusses the conceptual stance and methodology that the researcher has used in this study and also point out the rationale for adopting a mixed-method approach. This includes an overview of the research designs, research methodology, explanation of the sample and Sampling method, tools and instruments of the research, and procedure of data collection and analysis. For this study, the researcher has used both qualitative and quantitative research methods. According to Waigumo (2013) and Mugenda (2003), the methods complement each other by studying problems based on numerical data and qualitative data as a whole.

The researcher has used the interview schedule, so quantitative research involves design, techniques, and tools that produce discrete statistical or quantifiable data. On the other hand, the qualitative method helps the researcher to obtain in-depth data.

1.2.1 Philosophy of Research

Philosophy of research is a method and belief about a phenomenon in which data is collected, analyzed, and used. According to Saunders et al. (2009), different types of philosophical points contain having different assumptions, which are influence our view about the problem. The research-based on epistemological position, which is related to the nature of the knowledge, and how it can be received, is understood as one core factor of the research methods, which affect the choice of research (Snap & Spencer, 2003).

According to Allison (2000), epistemology can be defined by questioning what we “do know” and “can know.” It has two approaches. Positivist approaches refer to scientific knowledge, which is only, can become to theories of positive affirmation by strict scientific method. The belief of positivist is that reality is different from the individual what they observe (weber, 2004). On the other side, beliefs of Interpretivist that reality which individuals observe cannot be different from each other. Linden et al. (2007), interpretivist put their root of argument in Husserl’s, and also Hegel, the notion of life-world, and their thoughts about the world are inextricably limit to a stream of practice we have had throughout our lives. The life-world has subjective and objective characteristics. The subjective characteristics show our thought and meaning about same world. The objective characteristics show that we are perpetually negotiating this meaning to interact with others (Weber, 2004).

The positivist concept uses a quantitative approach, while the interpretivist (explanatory) concept uses a qualitative approach. They have characterized all approaches not only through the objective taken but also through the process used to apply for design (Creswell, 2009). The indifference of the qualitative approach tends to be associated with the interpretive concept, which applies methods such as interviews, content studies, descriptive anthropology, and human experience studies as their preferred research strategies consequences in textual data (Weber, 2004).

According to Creswell (2009) the third set of beliefs, which is called pragmatic paradigm, leads to the emergence of a mixed method. Mix approach is the use of quantitative and qualitative method during the collection of data in one study or several studies for the research. Tashakkori & Teddlie, 1998 suggested a mixed-method approach for alternative and challenged the dominance of a singular method.

In the argument of pragmatists, false duality existed between quantitative and qualitative approaches, so researchers need to use the power of both paradigms to understand the social phenomena properly. The selection of choice should directly be connected to the nature of the purpose of and the research question posed, which rejects the forced choice between positivism and interpretivism (Creswell, 2009).

The behavioural paradigm offers the research visceral solicitation approval of interest area of the subject which they want to study, adopting a method that is suitable and utilizing conclusion in a positive way, and have to concord with the value system (Creswell, 2009). Therefore, these all reasons and facts show that a pragmatic paradigm can be adopted for this study.

Moreover, the mixed techniques utilize strategies that include gathering information in a concurrent or successive way, utilizing both quantitative and qualitative methodologies in a way that best tends to the exploration question or questions. According to Darlington and Scott (2002), choices on whether to adopt a quantitative, qualitative or mixed technique ought to be made on the appropriateness of research design and methodology instead of the philosophical commitments.

1.2.2 Research Design and Research Method

The researcher has discussed the relative estimation of qualitative and quantitative investigation (Patton, 1990). According to Strauss & Corbin (1990), qualitative research is widely defined signifies that any type of study that generates results that have not been achieved through statistical processes or a different method of quantification. On the other hand, in comparison to the qualitative researcher who seeks illumination, comprehension, and extrapolation to comparable circumstances, the quantitative researcher seeks causal determination, prediction, and generalization of results.

The decisive study seeks to develop measurements for obviously specified phenomena, while exploratory research is characterized by a flexible and changing approach to phenomena investigation (Malhotra & Birks, 2007). Therefore, the main reason for carrying out conclusive studies is to test particular hypotheses and examine particular contacts. On the other hand, the aim of exploratory research is to provide insight into the nature of a certain phenomenon and to understand it. In view of the above knowledge and understanding, an exploratory method using mixed techniques has been adopted for this study.

Saunders, Lewis, & Thornhill (2007) express that exploratory research is a useful way of discovering, what is going on, seeking fresh perspectives, asking questions, and evaluating phenomena in a fresh light (Robson, 2002). A benefit of utilizing an exploratory technique is that it is versatile and suitable to modify. For instance, a shift in orientation is feasible due to the appearance of new information and fresh perspectives. Saunders, et al. (2007) and Though, et al. (1991) note out that there is no lack of direction in the study due to the flexibility intrinsic in exploratory research.

1.2.2.1 Mixed Approach

The procedure that confined the present research was a mixed technique plan, which joins philosophical assumptions and strategies for request supported by

(Creswell & Plano Clark, 2007). A combined quantitative and qualitative study promotes a mixed-method approach that allows a stronger comprehension of a particular strategy. Furthermore, mixed techniques enable both inductive and deductive inquiry within the same studies to take place. Tashakkori and Teddlie (2003), notice that mixed approach techniques are superior to the strategy of mono-method techniques in three fields.

Firstly, the capacity to answer confirmatory and exploratory questions simultaneously. Second, it offers greater inferences to complicated social phenomena through depth and breadth. Third, by means of divergent results, it offers a chance to express different points of view. The three regions have been modified and created by Venkatesh, Brown, & Bala (2013) indicating seven reasons for studies in mixed methods (Creswell, 2003; Tashakkori and Teddlie, 2008) namely: Additionality, entireness, growth, expand, authentication, recompense and divergent.

Table 1.1: Reasons of Mixed method study

Reasons	Explanation
Additionality	To obtain supplementary opinions on the same events or interactions, mixed methods are used
Entireness	Mixed-methods designs are used to make sure a complete picture of a phenomenon is obtained
Growth	Inquiries for one strand rise up out of the derivations of a past one, or one strand gives hypotheses to be tried in the following one.
Expand	Mixed techniques are utilized so as to clarify or develop the comprehension acquired in a past strand of an investigation.
Authentication	To evaluate the credibility of illation gained from one method, mixed methods are used
Recompense	Mixed methods make it possible by using the other to compensate for the weaknesses of one strategy
Divergent	In order to gain divergent opinions of the same phenomenon, mixed methods are used

Source: Creswell, 2003

In a mixed-method process, mixed processes, including sequential and concomitant information collection, by embedding, merging or linking information, can combine data. Concurrent designs create triangulation because a range of views allows several contexts to be viewed. Several writers have created typologies of blended

techniques research structures (Greene et al., 1989; Steckler, McLeroy, Goodman, Bird, & Mc- Cormick, 1992; Creswell et al., 2003).

Creswell et al. (2003) built up a framework for arranging mixed techniques research structures, comprising of six essential sorts of plans: three sequential (illustrative, exploratory, and trans-developmental) and three simultaneous (triangulation, settled, and trans-developmental). Each of these variations varies with regard to the use of an explicit theoretical lens to implement (sequential or simultaneous methods for data collection).

The quantitative and qualitative data are given priority at this stage of data analysis and integration. An exploratory and descriptive method has used for the research in this thesis. Creswell et al. (2003) pointed out that Quantitative data is gathered and analyzed, trailed by qualitative data. The main purpose of qualitative data is used to upgrade quantitative data. Usually, the information analysis is linked and integration can take place at the point of data interpretation and debate. These ideas are especially useful to clarify connections as well as results, especially when unanticipated. The following figure shows the sampling technique based on mixed-method approach.



Source: Creswell, J.W.(2015). *Mixed methods Research*, pp. 78.

Figure 1.4: Sampling techniques of mixed-method approach

Bryman, (2006a) displayed inspirations for utilizing a mixed techniques research approach. The following table has been pointed out the reason for using mixed methods:

Table 1.2: Bryman’s approach to using a mixed-method

Reason	Description
Simplification	Utilization of one information accumulation technique or research procedure to help research utilizing another information-gathering strategy or research methodology inside an investigation Complementarity
Parallel	utilization of two or even more study approaches to combine various elements of the study
Generality	Using an autonomous information source to put the primary research into a context or quantitative analysis to give comparative significance

Interpretation of help	Using qualitative information to describe the connections among quantitative factors
study various element	Quantitative to take a large scale viewpoint and qualitative to take small scale perspectives.
resolving a riddle	Utilization of an elective information accumulation strategy when the underlying technique uncovers unexplainable outcomes or deficient information

Source: Creswell et al. (2003)

In addition, Howe, 2003 says that by applying mixed techniques, including a variety of social scientific views, fewer partialities, and more aim, social study is generated. Additionally, Onwuegbuzie & Leech, 2004 notice the consideration of subjective information gathering examination in quantitative understanding helped the translation of huge discoveries; and that quantitative information gathering examination and translation added significance to subjective discoveries. ***In this study, the researcher has used a quantitative and qualitative approach (mixed-method approach). The quantitative approach has been used as the primary data, which is a source of generalization. The qualitative approach has been used as secondary data that helps to form the base of the study.***

1.2.2.2 Triangulation

Internet and social networking experts, users (students), and thematic content are the three sources employed for data of this study. Each source provides assurance to establish each other's credibility. Denzin and Lincoln (1998) claim that triangulation is the use of multiple methods to ensure the research process is well-understood (Denzin & Lincoln 1998). According to Denzin (1970) & kimchi et al. (1991) “Triangulation is the combination of two or more data sources, investigators, methodological approaches, theoretical perspectives or analytical methods within the same study” (Denzin, 1970; Kimchi et al., 1991).

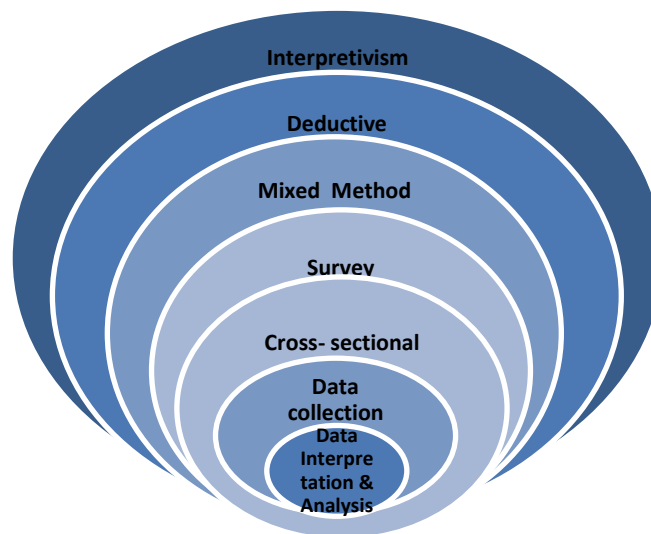
The researcher's purpose in using the triangulation design is to directly compare and contrast the results of qualitative and quantitative data to each other. For this, Different data types were collected and then triangulated from different sources to further identify the concepts. This study examines various aspects of sources of data collected and theoretical perspectives, followed by the triangulation method.

1.2.3 Research Method

This research is exploratory and descriptive in nature. The survey method has been used to reach the primary respondents. The deductive approach has been used to

generalized the aim and objective of this study. This research focuses on how people use technology for interpersonal communication to maintain formal and informal communication. The study also covers existing present types of mediated text communication and concludes with the use of technology communication in interpersonal contacts. The empirical study has been based on quantitative and qualitative (mixed) approaches. In order to provide quantitative data, the study introduced an Interview schedule that offered a wide variety of opinions and enabled significant mathematical analysis.

According to Kuter & Yilmaz, (2001), Interviews and questions are important technical aspects used in studies into social sciences and technology. Questionnaire and interviews are comparable techniques because they involve questions asked by users and responses recorded (Nielsen, 1993). In general, questionnaire are self-executed and do not require the researcher's participation. Interviews schedule, by comparison, require an interviewer to read the query and record the participants ' responses. The following model shows the process and steps of this study:



Source: Self-created

Figure 1.5: Process and Steps of Research

This research is based on interpretivism approach because data has analyzed through field experience, observation, and given views of different scholars and thinkers of the related study. In this study, the researcher basis on the previous study tried to generalize and explore the unknown fact and figure about it. Therefore, the nature of this study is deductive. For this study, the researcher has been used quantitative and qualitative approaches for the collection of data. Therefore, this study is based on a mixed-method approach. The researcher has used the survey method for the collection of data. Besides this, the research is a cross-sectional study because,

during the data collection researcher also observed the behavioural of respondents toward answering the question regarding uses of social media during interpersonal communication.

1.2.3.1 Exploratory Research

The initial study into a hypothetical or theoretical idea is defined as exploratory research. Exploratory type of research is usually performed to have a better understanding of the existing problem but generally does not result in a definitive outcome. Researchers use exploratory research to familiarize themselves with a current trend and gain new insight into it to establish a more accurate issue. The research process varies depending on the finding of new data or insight in exploratory research. Explanatory research is conducted not to provide conclusive evidence to determine the nature of the problem, but to help us better understand it. It also helps to establish research design, methodology and method of data collection from sample (Singh, k. 2007).

Observations, surveys, interviews and focus group are the primary method of this research design. Unstructured interviews with exploratory studies are the most widely used primary data collection method (Brown, R.B. 2006). ***Based on this, the researcher conducted a depth interview with the internet and social media experts, media behavioural observer's experts and analyzed other contents related to the study. For the collection of primary data, the researcher conducted a field survey. This survey was based on the research objectives and problem of the research.***

1.2.3.2 Survey Method

Survey method is a major field of applied social science research measurement. Surveys are used to gather views, beliefs, and feelings from chosen individual groups, which are often used for demographic research. Survey research allows us to collect large volumes of data that can be analyzed for frequencies, averages, and patterns. Survey includes interviews schedule and questionnaires, which consist of questions, opinions, and polls with multiple choices.

On the basis of this, the researcher conducted a survey to know the views and opinions of users towards the use of information and communication technologies in interpersonal communication. Through the survey researcher has also explored that which kind of effects and changes in behaviour are there on the users. For the survey, the researcher has designed an interview schedule.

1.2.3.3 Descriptive Analysis Method

Descriptive research is intended to describe a population, situation or phenomenon accurately and systematically. Descriptive research design can explore one or more variables using a wide variety of quantitative and qualitative methods. In order to identify characteristics, frequencies, patterns, associations and categories, descriptive analysis is an appropriate choice. Survey, Observation and case studies are primary methods of descriptive research design.

Based on this, the researcher constructed open-ended and closed-ended interview schedules and asked the users about the use of information and communication technology. The survey analyzed the views and opinions of the respondents by the researcher.

1.2.4 Sentiment and Semantic Analysis

The analysis of sentiment (emotion) includes the use of language processing, text analysis, computational and biometric linguistics to define affective and subjective status systematically and collecting, quantifying, and researching information. The meanings and contexts used to understand natural language is called semantic analysis. Semantic analysis of the natural language content begins by reading all the words in their content in order to capture every text's true meaning. It identifies and assigns the text elements to their logical and grammatical role.

The purpose of sentiment analysis is to define automatic tools that can extract information from natural language text and images, such as opinions and feelings. Social media sentiment analyzes lead to new and more complex scenarios. The feeling is often expressed in maximum of two sentence sections with an informal linguistic register and non-standard orthographer.

On the basis of this, the researcher analyzed the emoticons, emojis and non-standard orthography (various forms of Textisms (abbreviations)) used by users in the communication process. Through this, the researcher tries to find out whether the emojis sent by the sender has the same feelings that it wants to send to the receiver or that the receiver receives or perceives it as another emotion.

Pozzi (2018) concluded, “Information contained in Social media, which became one of the major types of communication, makes them an attractive source of data for sentiment analysis. Not only texts but also emoticons, which represent linguistic elements typically used on social media to elicit a given message, can be used to boost sentiment analysis” (Pozzi, 2018).

1.2.5 Universe of the study

1.2.5.1 Study Area

Why Delhi? - Delhi is the National capital territory (NCT) of India. It is the largest metropolitan area of India and the largest city. Population wise it holds the second position in the list of largest metropolises in India, after Mumbai. It is a city in the country where we can found real cultural diversity. In the top four, most metro cites Delhi is one of them. In the field of internet and communication development, it also keeps the important place. According to the Internet and Mobile Association of India (IAMAI) report (2014), Delhi becomes the second most internet/social networking sites users' city. Delhi has 12.15 million internet users after the top city of Mumbai (16.4). This report also concluded on behalf of 50 % Year-over-year (y-o-y) growth rate, among the top cities of India, only Delhi registered as the highest growth of internet users. New Indian Express report also mentioned that Delhi, Kolkata, and Mumbai were the top three cities that had the highest penetration. ***On the basis of this researcher has purposively selected Delhi for this study.*** Demographic representation of the study area:



Source: <https://www.google.com/search>

Figure 1.6: Demographic representation of the area of the study

1.2.5.2 Population of the study

The population of this study was all higher education universities/institutions approved by UGC, Delhi, and their students. According to Chen, J. (2020), in the field of education, 61 percent of high school students use the internet and social networking sites, 75 percent college education students, and 74 percent more than (university/institutions) college education students used the Internet and social media (Chen, J. 2020). ***Based on this, for this study researcher has also taken higher education universities/institutions as a population.*** The following table shows the Demographic representation of all Higher education University/Institutions of Delhi:

Table 1.3: Demographic representation of Higher education Universities/Institutions

S. no	Name of the Universities/Institutions	Types
1	Bharat Ratna Dr. B.R. Ambedkar University	State University
2	Delhi Pharmaceutical Sciences & Research University	State University
3	Delhi Technological University	State University
4	Guru Gobind Singh Indraprastha Vishwavidyalaya	State University
5	Indian Agricultural Research Institute	Deemed University
6	Indian Institute of Foreign Trade	Deemed University
7	Indian Law Institute	Deemed University
8	Indira Gandhi National Open University	Central University
9	Indira Gandhi Delhi Technical University for Women	State University
10	Indraprastha Institute of Information Technology	State University
11	Institute of Liver and Biliary Sciences	Deemed University
12	Jamia Hamdard	Deemed University
13	Jamia Mallia Islamia University	Central University
14	Jawaharlal Nehru University	Central University
15	National Institute of Educational Planning and Administration	Deemed University
16	National Law University	State University
17	National Museum Institute of History of Art, Conservation and Museology	Deemed University
18	Netaji Subhas University of Technology	State University
19	Rashtriya Sanskrit Sansthan	Deemed University
20	Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapith	Deemed University
21	South Asian University	Central University
22	TERI School of Advanced Studies	Deemed University

23	University of Delhi	Central University
24	All India Institute of Medical Science	National Importance Institutions
25	Indian Institute of Technology	National Importance Institutions
26	National Institute of Technology	National Importance Institutions
27	School of Planning & Architecture	National Importance Institutions

Source: <https://www.ugc.ac.in/oldpdf/Consolidated%20list%20of%20AI%20Universities.pdf>

1.2.5.3 Unite of the Study

The total population of India currently exceeds 1.36 billion people. It is the second-most populous country followed by china. Two hundred thirty million or 70 percent of them are active users of the Internet and social media (talkwalke report, 2019). India is the leading country has 269 million users of Facebook (social media) followed by the US (183 million) and Indonesia (123 million). According to the analytics Jenn Chen 2020 “sporutsocial” report and Pew research Centre survey 2019, 18 to 29 year-old age group most frequently uses the internet and social networking sites. Pew Research Centre frequently divided users of the internet and social media into different age groups/categories such as 13 to 17-year-olds, 18 to 24- year- olds, 25 to 29 –year- olds, 30 to 49 –year- olds, 50 to 64- year-olds, and 65 to above.

Respectively from these, 51 percent internet and social media user comes under between 13-17, 76 percent Internet and social media user comes between 18-24 age group, 84 percent comes between 25 -29 age group, 79 percent comes under between 30-49 age group, 68 percent comes under between 50-64, and 46 percent comes under between 65 to above. ***On the basis of this, the researcher has taken the young users and high users groups of ICTs (Internet and social networking sites), i.e., 18-24, 25-29, 30 to above for collection of data and other activity for this study.***

1.2.6 Sampling Process

This study is based on the use of information and communication technologies (Internet, social networking sites, smartphones, etc.) for interpersonal communication. According to Pew Research Center Internet and Technology, 2019 fact sheet top most frequent users of ICTs are young youth age between 18 to 29 years old and second most user age 30-49 years age group. For the fulfilment of this purpose and delimitation of the study, the researcher has taken higher education

Universities/institutions of the NCT of Delhi for this research. Delhi is a metropolitan city and according to UGC institutions report, there are 27 different types of University/Institutions.

The nature of all universities/Institutions is heterogeneous. Therefore, for the selection of sample Universities/Institutions the researcher has categorized all University/Institution based on their homogeneity. According to UGC, higher education universities/Institutions divided into different categories such as Central University, State University, Deemed University, a Private University, and Institutions of National Importance. In the NCT of Delhi, there are no private universities/institutions, according to the UGC list. So in this study, higher education universities/institutions are divided into four homogenous categorizes. The following figure shows a total number of higher education University/institutions and their division into categorizing, which base on homogeneity:

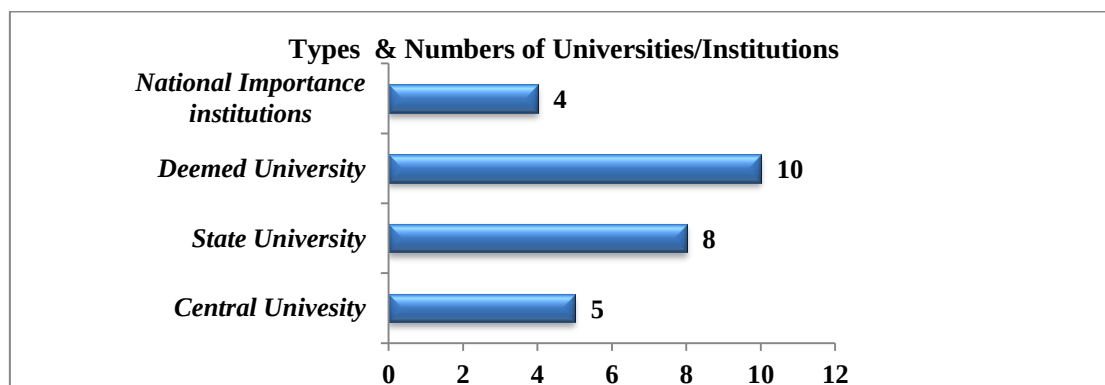


Figure 1.7: Categorise wise all higher education Universities/Institutions numbers

1.2.6.1 Sampling Techniques

In this study, probability and Non-probability, both sampling techniques have been used. For the selection of sample universities/institutions, a **stratified sampling technique** has applied probability sampling. The researcher has divided all universities/institutions on the basis of their homogeneity into four strata or category. Strata A represents 'Central University', Strata B represents 'State University', Strata C represents 'Deemed University, and Strata D represents 'National Importance Institutions'.

The population of each stratum is not same. Therefore, the selection of the sample of Universities/Institutions for data collection, the researcher has been used central tendency (Mean/average). The following table shows the mean of all strata:

Table 1.4: Descriptive Statistics

Total Strata	N	Sum	Mean
Universities/Institutions	4	27.00	6.7500
Valid N (strata)	4		

The mean/average of all higher education Universities/institutions for data collection was $6.7 = 7$ Universities/Institutions. That means the sample size = seven universities/institutions for data collection out of the total population.

For the selection of the sample (universities/institute) from each stratum, the researcher has used the following mathematical technique:

Number of the universities/institutions in categories (Strata) $\times$ the total number of all higher education universities/institutions $\div 100$

For example, From Strata A,

The numbers of central universities are Five. $5 \times 27 \div 100 = 1.3$. Therefore, a round of nearest digit has been taken as One (1).

From Strata B,

The numbers of state universities are Eight. $8 \times 27 \div 100 = 2.1$. Therefore, a round of nearest digits has been taken as Two (2).

From Strata C,

The number of deemed universities is ten. $10 \times 27 \div 100 = 2.7$. Therefore, a round of nearest digits has been taken as Three (3).

From Strata D,

The numbers of national importance institutions are Four (4). $4 \times 27 \div 100 = 1.0$. Therefore, a round of nearest digits has been taken a One (1).

Table 1.5: Basis of the above calculation, categories wise number of universities/institutions for sampling

Type & categories of Universities /Institutions	Total Number of Universities/ Institutions	Sample number of Universities/ Institutions
Central University	5	1
State university	8	2
Deemed University	10	3
National Importance institutions	4	1
Total	27	7

After that, the selection of a number of universities/institutions from each stratum, the researcher has used the Lottery method followed by a **simple random sampling technique** for the selection of Names of universities/institutions for data collection. The name of selected universities/institutions given in the following table:

Table 1.6: Selected universities/institutions for data collection

Type & categories of universities/Institutions	Name of selected universities/institutions
Central University	1. Jawaharlal Nehru University
State University	1. Guru Gobind Singh Indraprastha Vishwavidyalaya 2. Bharat Ratna Dr. B.R. Ambedkar University
Deemed University	1. Jamia Hamdard 2. Indian Institute of Foreign Trade 3. TERI School of Advanced studies
National importance institutions	1. Indian Institute of Technology

For this study, a **purposive sampling technique** has been used for the selection of users (students) of ICTs (Internet, social networking sites) followed by the non-probability sampling technique.

For Qualitative Data:

For the qualitative data, the researcher has conducted in depth-interview with experts. For the selection of experts, the researcher has used a purposive sampling technique based on the problems of the study. Purposive sampling technique is a type of non-probability sampling technique. Besides this, content analysis of related studies has also done by the researcher for the qualitative data.

1.2.6.2 Sample Size

A sample is a population subset and includes a few chosen members from the population (Sekaran, 2003). The sample size of this study is based on the total population of the universe. So for determining of sample size, the researcher has used the following mathematical formula developed by Taro Yamane (1970:886-87):

$$n = \frac{N}{1 + N(e)^2}$$

Here, N = Total population

e = Error or confidence level

n = Simple size

95% confidence level

$$n = \frac{31762}{1 + 31762(.05)^2}$$

$$n = 395$$

The sample size for this study based on the above formula is 395. Therefore, surpassing this figure, the researcher has decided to conduct a study on 400 samples. The distribution of samples in various universities/institutes has been calculated based on the sample size and percentage of their total population. For this study, the distribution of samples in each university/institute has been calculated by the following mathematical technique:

% of Sample:

$$\frac{\text{Sample size}}{\text{Total population}} \times 100$$

$$\frac{\text{Separate poplation of universities/institutions} \times \text{calculated \% of sample size(proportion)}}{100}$$

The following table shows the distribution of the samples in each university/institution that is based on the above mathematical technique:

Table 1.7: Distribution of the samples in each university/institution

Universities/Institutions	Population(NIRF report)	Proportion %	Samples distribution
Jawaharlal Nehru University	8775	1.25	110
Guru Gobind Singh Indraprastha Vishwavidyalaya	4361	1.25	55
Bharat Ratna Dr. B.R. Ambedkar University	2332	1.25	30
Jamia Hamdard	4079	1.25	51
Indian Institute of Foreign Trade	2377	1.25	30
TERI School of Advanced studies	954	1.25	12
Indian Institute of Technology	8884	1.25	112
Total = 7	31762		400

For this study, the researcher has taken the total population of each university/institute based on the NIRF report. The National Institutional Ranking

Framework (NIRF) is a methodology adopted by the Government of India's Ministry of Human Resource Development to rank higher education institutions in India.

For this study, the researcher has taken all UG, PG, M.Phil, and Ph.D. students, who use information and communication technologies for interpersonal communication and other activities.

1.2.7 Data collection Method and Tools

For this study, the researcher has collected data from students and the experts of Internet or social media. The researcher for the collection of primary data has used the field survey for users and conducted in-depth interviews for experts. In addition, for secondary data researcher has also studied various literature, like research journals, reports, books, newspapers, magazines, research works, various online contents etc.

1.2.7.1 Tools

For this study, the researcher has used the Open-ended and closed-ended interview schedules as a data collection tool in respect of users (students) of information and communication technologies. The researcher has used an open-ended interview guide to collect data from experts of Internet or social media.

1.2.7.2 Survey Response Scales

For the items of interview schedule, the researcher has used a three-point Likert scale, ranging from “Disagree” to “Agree”. In addition, the researcher has used frequency scale ranging from “Never” to “Always” and “once in a day” to “thrice-in month”, dichotomous scale such as “yes” and “No”, Pictorial/Graphic Scales and self-created multiple optional scales (Sauro, J. 2018).

1.2.7.3 Data Analysis

In this study, statistical packages such as Excel and Crack versions of SPSS 23.0 have been used for the analysis of quantitative data. In addition, descriptive statistics such as mean, percentage, tabulation, crosstab, and chi-square have also been used to analyze the data.

1.2.7.4 Major Variables

- **Independent Variable**

Information and Communication Technologies

- **Dependents Variable**

Interpersonal Communication

1.2.7.5 Time frame of the study

For this cross-sectional study, the researcher conducted a survey for the collection of primary data during the month of April 2019 to October 2019.

1.2.8 Validity and Reliability

The aim of validity is to determine the effectiveness of the study. Gill & Johnson, 1997 offer several criteria for evaluating the value of the selected research method.

Internal Validity - To what extent the researcher can be sure that the 'cause ' produces the impact. Internal validity also relies on how the experimental results alone lead to the observations and anything else (Olivier, 2004). Creswell & Plano Clark talked about these issues and noticed that member's development during the exploration that may affect the outcomes, as could determination of members with specific attributes also; members may pull back, or become gotten comfortable with the result and recollect reactions for some other time testing (Creswell & Plano Clark, 2011).

External Validity-To what extent a study can be generalized. When the result of the experiment can be generalized and extended to a representative of the general population, external validity is obtained.

For instance, field-testing in a realistic environment would increase the external validity of the results but would reduce the internal validity results because the influence variables in the natural environment are less controlled. In addition, internal threats of validity occur if inaccurate results derived from the test information are copied in other environments, samples, or timed circumstances. For example, participants and the definition or timing of the research limits the generalization to other people, contexts, or situations (Creswell & Plano Clark, 2011). In quantitative studies, Criswell & Plano Clarke (2011), indicate additional potential biases: the validity of statistical findings, which are used to formulate and construct valid conclusions where researchers use inappropriate variables.

Reliability–The consistency of the outcomes and how much another researcher would be almost certainly able to reproduce the first research.

Creswell & Miller (2000) define qualitative validity, as a determination whether the findings are correct from the point of view of the participant or of the reader of the research. According to Maxwell, (1992), the issue of generalisability assumes an unexpected job in qualitative research in comparison to it does in quantitative research, as qualitative examinations are not intended to permit orderly speculation. Yin (2004)

states, however, that a single case is generalizable poor; therefore, it is better than various case studies be generalized.

Issues of validity in mixed studies can relate to sample choice, sample size, the monitoring of conflicting outcomes, information collection distortions, insufficient processes, or the use of competing for study questions (Creswell & Plano Clark, 2011). Researchers have talked about how validity identifies with the research plan and data accumulation, to information analysis, and to the analysis of results (Onwuegbuzie & Johnson, 2006; Teddlie & Tashakkori, 2009). For instance, the view on the validity of mixed techniques in studies on Onwuegbuzie & Johnson (2006) relates a large number of stages of the study method, from philosophical assumptions to research findings.

Validity in mixed-method research is defined by Creswell & Plano Clark (2011), utilizing techniques that address potential issues in information gathering, information interpretation, and the connection that may compromise from the blending or interfacing of the quantitative and qualitative strands of the study and of findings drawn from the mixture. Thus, this study has concentrated on the processes to be used in all stages of information collection, data analysis, and study interpretation.

For this study, the researcher has used various techniques for reliability and validity. Followed by Silverman (2011), survey interview schedule and content protocols are used and reviewed. In each case, the questions were piloted using features comparable to the target group. Based on suggestions and pilot results, misleading and unclear questions were changed, and the formulation and structure of the questions were changed.

1.2.9 Pilot Study

Pilot studies are called smaller versions or full-scale trials of optimizations of studies. It is a tactical study tool to pre-test a search option, like a questionnaire or interview schedule. It is key to excellent study design, which has the potential to minimize the problems of the field. Pilot studies contribute to the development, testing, and collection of preliminary information by creating a comprehensive survey, research protocols, plans, or questions.

The primary benefits of pilot studies are that they warn about the lack of the major research project or research protocols and about the inappropriate or complex nature of the techniques suggested for study (Van Teijlingen & Hundley, 2001). The findings of the pilot research ensured that the research functioned properly and that the required information was satisfactorily gathered. This enabled the collection and review

of information to guarantee that the results fulfilled the interview schedule goals. The pilot study gives a chance to know the average length of time took to complete the interview schedule.

For this study, before the primary survey of this research study, the researcher has conducted a pilot study. To analyze the study, the researcher collected qualitative and quantitative data based on the pilot study. Based on the results obtained from the pilot study, the researcher has revised the study questions. The pilot study showed that the use of information and communication technologies in interpersonal communication is not only for easy accessibility but it is having a strong effect that it is totally changing the way of communication as well as the behaviors of individuals.

A pilot study was done in higher education universities/institutions of the NCT of Delhi. One hundred respondents were purposively selected for the pilot survey. The researcher conducted the pilot survey during the month of December 2018 to January 2019.

The pilot study provided a comprehensive overview, enabling the researcher to focus on research goals and identify the challenges required to deal with the questions of the comprehensive interview schedule. For instance, sorting and ordering the questions, arranging responses to multifaceted issues, giving interviewees more room to express their ideas more fully, etc.

1.2.10 Structure of the Thesis

This section shows a brief description of all chapters, which are part of this thesis. In this, the researcher also discusses the structure map of the entire thesis, which gives direction to their readers. The researcher has made the figure of the structure of the thesis, which is given below:

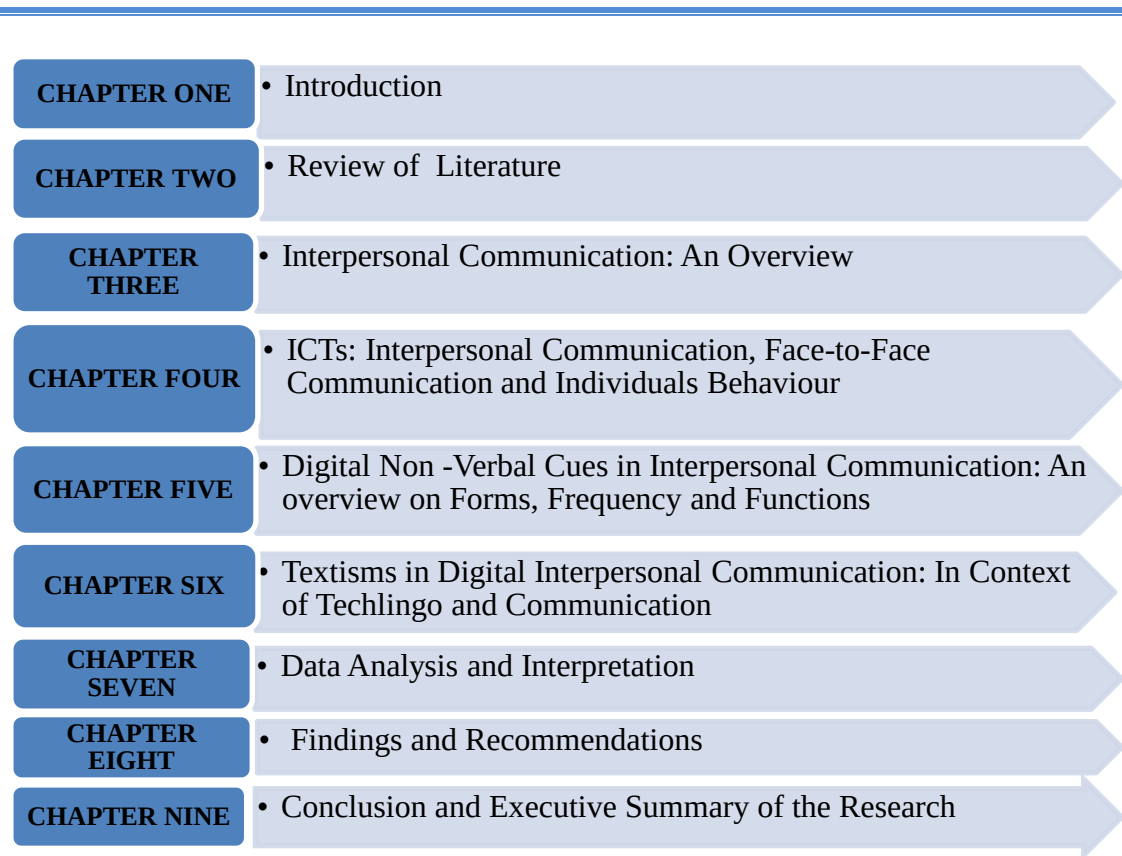


Figure1.8: Structure of the Thesis

The research study is divided into nine chapters providing a full overview of the various aspects of the study. **The first chapter** entitled ‘Introduction’ gives detailed information on various aspects of the research study. The chapter is divided into two-part. The first part gives an in-depth introduction of the research study. This includes the elaboration of the idea of research such as background, Motivation, research problem, significance of the study, objectives, research hypotheses and stipulated definitions. The second part covered Research Methodology. It focuses on the methodology and challenges involved in compiling, storing, and exploiting this research. This helps to understand how the research has been conducted. It also describes the procedures followed in carrying out the research study. It includes research design and methods, area of the study, population, sampling procedures and size, research instruments, data collection, and analysis techniques. Besides this, it also includes detailed procedures of the interview with experts. This chapter also provides evidence of the validity and reliability of the research.

Chapter Two, "Review of Literature," also divided into two parts. The first part has covered a review of the empirical literature on the concept of uses of Information and communication technologies as interpersonal communication patterns and in other activities. This part also covered reviews of various studies focusing on the nonverbal

cues such as emoticons and emojis as technology-mediated forms of Communication, textisms as new form of Communication such as letter repetitions, alphanumericism, abbreviations, etc. and effects of technology on individuals behaviors. The second part of this chapter has covered the theories and models related to the study. It provides information about the conceptual framework of the research.

Chapter Three "Interpersonal Communication: An Overview," is focused on the concept of interpersonal communication. This helps to understand the basic and core of interpersonal communication. This will helps to understand the core of interpersonal communication. Forms of interpersonal communication spotlighted with elements and principal of interpersonal communication. Models of interpersonal communication are highlighted in further segments, which include Linear, Interactive, and Transactional model of communication. The functional and cultural aspects of interpersonal communication are also discussed in this chapter.

Chapter Four "ICTs: Interpersonal Communication, Face-to-Face Communication and Individuals Behaviours" strives to develop the understanding of role of ICTs in interaction. This chapter consists of three discipline i.e., tools and techniques of interaction, replacement of interaction method, and effects of ICTs on individuals' behaviors.

Chapter Five "Digital Non-Verbal Cues in Interpersonal Communication: An Overview on Forms, Frequencies and Functions" identified meanings and described all non-verbal cues such as emoticons and emojis that appear during Communication in text. In this chapter, the researcher has describes the forms and function of non-verbal cues (emojis) in detail. This chapter also highlighted the vendors' differences in designs of emojis that become the reason for miscommunication. It also focuses on the importance of emojis as communication patterns or new universal language. This provided the perspective of the replacement of words and sentences during text communication.

Chapter Six "Textisms in Digital Interpersonal Communication: In Context of Techlingo and Communication," based on Techlingo, which has become a new form of text communication. In this chapter, the researcher has given detailed information on Textisms forms. This chapter focused on the mediated writing periphery, cultural transmission, and various aspects of the linguistic corpus on which the text is based. This chapter also highlighted the all commonly used Textisms word and sentence based

on reviews. In the last, the literal meaning of Textisms (techlingo) during communication is also discussed.

Chapter Seven, "Data Analysis and Interpretation," focused on the qualitative and quantitative perspective of the result of the study. In this chapter includes the concept of demographical and geographical aspects of the analysis of collected data. This chapter explores the views and opinions of the respondent by tables and graphical representation of data.

Chapter Eight, "Findings and Recommendations," has been discussed the research findings recommendation, delimitations and limitations of the study. It presents the major findings as well as general findings of the research study, which based on the aims and objectives. This chapter also focused on future extensions of the research study.

Chapter Nine, "Conclusion and Executive Summary of the Research," focused on the gist summary of the research study. This chapter also provides objectives based conclusion of the study followed by the findings. The conclusion has divided into various sub-segments based on research hypotheses. The relevance of the study and its contribution to society is also mentioned in this chapter.

1.2.11 Chapter Summary

This chapter has explored the background information of research study and various aspects of research. This included the motivation and significance of the study, Research problem of the study, research objectives and research hypothesis briefly stated and discussed. In this chapter, the researcher has mentioned the stipulated definition of various terms, which used in this study. This chapter focused on structure of thesis, which provides the gist of all chapters proposed in this study. Further, the second section of this chapter dealt with Research methodology. This helps to understand how the research has been conducted. It developed the research framework of the study. This part focused on the design and sampling produces of this study and provides the information about the Mixed Method approach. It gives the details description of the universe, population, and sample size selection. In this chapter, the researcher has describes the analysis procedures of data. It provides information about the data collection method, tools, response scales, and period of this study. This section also details the pilot study of this research.

CHAPTER TWO

Review of Literature

2.1 Introduction

The purpose of this chapter is to review the literature on Information and Communication Technologies, Interpersonal Communication, and the role of communication technologies in maintaining social ties. This chapter has two sections. The first section has described the review of the empirical literature on the concept of uses of Information and communication technologies as interpersonal communication patterns and in other activities. It also includes reviews of how ICTs changes the tools and techniques of interpersonal communication and replacing face-to-face communication. This section has covered reviews studies focusing on non-verbal cues such as emoticons and emojis as technology-mediated forms of communication. The use of textisms and textisms as new forms of communication also has been reviewed. It also covers the review of how the use of ICTs affects individual behaviors. The second section of this chapter has covered the theoretical framework of the Information and Communication theories applied to this study. The review of the literature has been classified and presented on the basis of the period of time, country of the study, the methodology used, the issue covered, the techniques used, and conclusions.

2.2 Information and Communication Technologies (ICTs)

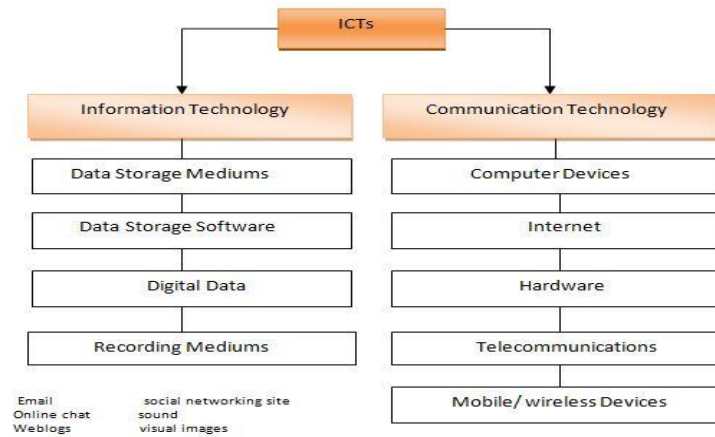
Today's society has shaped by rapid advancement and growth of information and communication technologies. The competence of ICTs has been resulting in great dependency of individuals on ICTs for information. In the 1980s, academic researchers used the phrase Information and communication technology as an abbreviation of ICTs; it became very popular when the first time in 1997, Dennis Stevenson used this abbreviation in the UK government report. ICTs are a broad term that has a different element for information and communication (Berkeley, 1949).

For this study, ICTs is the extensional phrase of "Information technology" which combination of unified communications such as social networks, instant messaging, web & video conferencing, voicemail, e-mail, SMS, etc. and the integration of telecommunications, computer as well as which having ability to access, transmit and manipulate information. Information technology is an integrated term of computer and communication or 'InfoTech'. ICTs evolved during the 1970s and can be traced nearby the Second World War alliance of military and industry in the development of electronics, computers and information theory. An origin of information and

communication technology is the foundation of Information technology, which starts with the invention of computers and telecommunication (Berkeley, 1949).

In this context, Historian Michael S. Mahoney (1990) said that nothing is exceptional; people face new situations and familiar with them and shape their reaction according to the perceived similarities. Berkeley described that in the 1940s, computers were a series of machines such as ENIAC (Electronic Numerical Integrator and Computer), MIT's differential analyzer, built at Harvard and Bell Labs. In their early phase, the computer was a calculating machine, such as hand-cranked calculators used for business. Berkeley called it a giant brain because it could think, and it "can handle information with great skill and great speed" (Berkeley, 1949, p. 7).

Information technology describes technologies that help communication manufacture, manipulate, accumulate, communicate, or broadcast information. Information technologies have become famous in their broad term, which explicitly includes electronic communication, which makes people tend to use phrase information and communication technology. Actual term ICTs refers to audiovisual convergence and telephone with computer networks through a cabling and link system. On the other hand, ICTs covers that entire product that will store, retrieve, manipulate, transmit, or receive information in digital form, e.g., mobile phone, personal computer, email, robots. Some authors can define ICTs differently (Emmitt & Gorse, 2003). Such as Kraemer & Danziger (1990) define communication technology as *"the actual hardware employed to perform a basic information task"*. Emmitt & Gorse (2003) said that ICTs is communication in organizations and between two or more organization is concerned with the exchange of information or communication and their management. Onyegiri et al. (2001) has summed up ICTs interpretations of communication through flow diagram in this; they show the flow of information in the form of communication. For this, they divided the ICTs into two parts Communication technology and Information technology. The following figure shows the ICTs interpretations of communication:



Source: <https://www.scihub.org/AJSIR/PDF/2011/3/AJSIR-2-3-461-468.pdf>

Figure 2.1: Diagram shows the flow of information through a communication Medium

Networking made our communication more easy and convenient around the world. Interconnection of computers and other different types of servers, internet provide facilities for networking. The Internet is the largest networking system which connected the global system and to link the devices worldwide. It carries a number of information resources, services, and communication platforms such as interlinked hypertext documents, different applications of the world wide web, email, telecommunication, and internet telephony (Onyegiri, et al., 2001).

2.2.1 Internet Networking

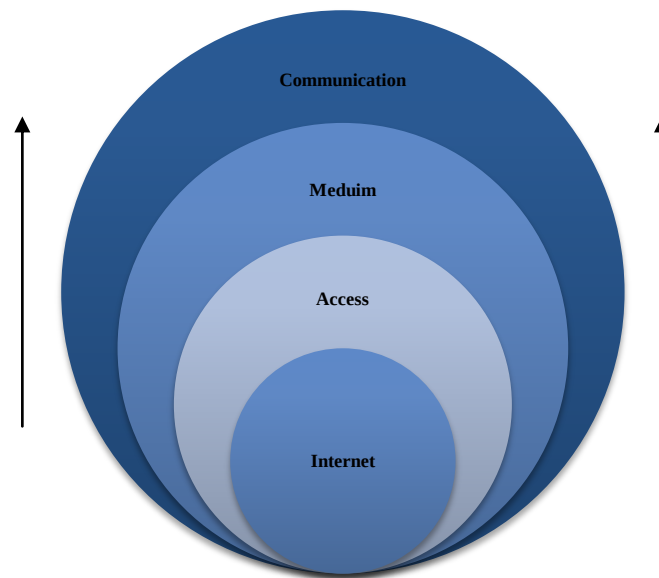
Today internet is an extensive network for information and communication service and also a widespread infrastructure of communication and information technology. History of the internet is complex and has several aspects like technical, scientific, organizational, community, societal, etc. The influence of the internet reaches not only the electronic communication and information fields but throughout its reach in society. The world of information and communication technology is the result of the revolution of the internet and innovation of technology like a smartphone, computer, social networking sites internet telephone, and hypertext set the stage for this exceptional combination of capabilities. It has worldwide capabilities of broadcasting, the technique of information dissemination, and mass medium for association and communication between people through their interaction technology of different geographic locations (Leiner, et al., 1997).

Many of us contributed to Internet development and gradual progress, which comes out after understanding its origin and history. Its history revolves around four different aspects. It started with technological development, which continued to grow with research on packet switching and ARPANET. The operation of global and

complex operational infrastructure is as a result of this. Apart from this, there is a social aspect, under which there is a large community of people working together to create and develop the technology. At the same time, there are commercialization aspects that impact the results of the research in the infrastructure based on widely developed and available information (Leiner et al., 1997).

The internet started in August 1962 with the first recorded record of social interaction on its MIT “Galactic Network” by J.C.R Licklider. In 1964 Leonard Kleinrock published the first book on packet switching theory, which was a major step in the field of computer networking. In 1965, Robert worked with Thomas Merrill to connect TX-2 Computer in the mass, to the computer of California Q-32, which resulted in the computer being able to talk together. Robert went to DARPA (Defense Advanced Research Projects Agency) to develop the concept of the computer network at the end of 1966 and soon published ARPANET’s plan and published it in 1967 (Leiner, et al., 1997). According to Artese (2019), in September 1969, the first host computer was added to the internet when BBN established its first Interface Message Processors (IMP) at UCLA. At the end of 1969, four host computers were added together in Arpanet, and in the same way, gradually, several computers were connected to ARPANET in a few days. In December 1970, networking group working under S. Crocker broke the first tie ARPANET host to host protocol, which named network control protocol (Artese, 2019).

Kahn organized a large and very successful performance at ARPANET in an international computer communications conference in 1972, which was the first public demonstration of the network for the common people. The first electronic mail was also introduced in 1972, and in March 1972, firstly, Ray Tomlinson easily sent and read an email message from the software made by the developers offering in BBN (Bolt Beranek and Newman). In July, Roberts made use of the first time program to respond to messages such as the usefulness of email, create a list of programs, read your matching mail and forwarding files, etc. The Internet provides a network for communication and information, connecting people from all over the world (Leiner et al., 1997). The following suggestive figure developed by the researcher to shows the flow of communication through the internet:



Source: self-made

Figure 2.2: Communication flow through the Internet

Several scholars have looked at the reasons why users go online or use the Internet. Papacharissi & Rubin (2000) developed measuring scales to find out why people use media, new technologies, and the Internet for communication. They found five reasons for using the Internet: mutual utility, time spent, information seeking, comfort, and enjoyment (entertainment). These reasons were linked to the types of individuals and the level of technology use. For example, the chat rooms were positively linked to motivation for interpersonal communication but were negatively linked to motivation for information (Wolfradt & Doll, 2001). Rubin & Rubin (1992) suggested in their study that interpersonal motives are interconnected and that an understanding of these personal motives can provide insight into the uses of these new technologies (Rubin & Rubin, 1992).

2.3 Technology-Mediated Communication in Interpersonal Relationships

According to Solomon & Theiss (2013), a specific type of communication called interpersonal communication. In general, Communication is the different type of symbols to the representation of ideas that had meaning to share, such as sound, movements, and images in the form of talking, gesturing, and writing—interpersonal communication divided into two-part “Inter” and “Personal”. The word Inter refers to the connection between people means interpersonal communication builds a connection between people such that personal actions affect and reflect the other person’s actions, which only possible in interpersonal communication. Word “Personal” refers to not only close personal relationships, but it also refers to professional relationships where two or more people involved in the interaction (Solomon & Theiss, 2013). ICTs

provide us with platforms where we can create a personal connection with others that exceed the separation imposed by time or space. To maintain interpersonal relationships, people use various platforms such as mail, Instant Messaging, Text messaging, chat rooms, social network sites, and voice calls.

E-mail is the method to communicate messages and communication between two or more people by the electronic device. E-mail first time was used in the 1960 decade, which was quite limited. However, in the mid-1970s, its use was large, and it was known worldwide as the e-mail. Nowadays, e-mail is being used to send and distribute messages to distributions, besides formal and informal communication. With the advent of the 1960s and computers, it was possible to send messages from one place to another via e-mail. About 40 years ago today, in June 1971, the world's first e-mail was sent by Ray Tomlinson. Ray Tomlinson was a computer engineer who contributed greatly to the development of Arpanet in the early part of the internet. In the initial period, a number of developers of mainframe and minicomputers are developed; even so, many US universities also became the part of ARPANET, whose main objective was the software portability between the two Systems. Not only this, but it was also helpful in making the portability Simple Mail Transfer Protocol fast (Alto, 2015). There are some popular e-mail services which frequently used for formal and informal communication. The following e-mails platform are the best communication platform according to Campaign monitor sites 2018 which prepare by Litmus Email Analytics worldwide up-to-date date figure for the top 10 e-mails:

Table 2.1: Popular e-mail services

SI No	E-mails	Uses/ clients
1	Apple iPhone	34%
2	Gmail	15%
3	Apple iPad	11%
4	Google Android	10%
5	Apple Mail	8%
6	Outlook	7%
8	Google Android	2%
9	Yahoo! Mail	1%
10	Windows Live Mail	1%

Source: Litmus e-mail analytics worldwide 2018

E-mail Statistics Report, 2015 - 2019, the United States also shows forecasts for e-mail and uses mobile e-mail for communication. According to this report, the pace of e-mail usage is increasing worldwide. In 2015, approximately 2.6 billion users accessed e-mail worldwide, and by the end of 2019, it had grown to over 2.9 billion. The following table indicated the use of e-mail per year worldwide.

Table 2.2: E-mail Accounts and User Forecast

	Worldwide Email Accounts	Growth%	Worldwide Email User	Growth%	Average accounts per Users
2015	4,353		2,586		1.7
2016	4,626	6%	2,672	3%	1.7
2017	4,920	6%	2,760	3%	1.8
2018	5,234	7%	2,849	3%	1.8
2019	5,594	7%	2,943	3%	1.9

Source: E-mail Statistics Report, 2015-2019, the Radicati group

The total number of e-mail accounts per user ratio increased from 1.7 per user to 1.9 per user. This means that the volume of e-mail users for communication purposes continues to increase. The following table shows the daily sent/received worldwide ratios during 2015–2019:

Table 2.3: Per Day sent/received e-mail worldwide

Daily Email Traffic	Total worldwide Email Sent/Received per Day	Growth%
2015	205.6	
2016	215.3	5%
2017	225.3	5%
2018	235.6	5%
2019	246.5	5%

Source: E-mail Statistics Report, 2015-2019, the Radicati group

During 2015–2019, the average number of e-mails sent/received daily increased to 5 percent. The average number of e-mails sent/received per day in average growth of 5% to 5% daily ratio during 2015 – 2019.

Baym (2002) maintains that the asynchronous nature of e-mails is a key feature because they increase interpersonal interaction and are primarily responsible for why people first go online. The uses of electronic mails in households were analyzed, which found that 61 percent of people used relatively long-term e-mail in interpersonal relationships. Due to their low cost and usability, and their ability to cross-geographic boundaries, the participants rated e-mail as a popular form of communication. Due to their low cost and usability, and their ability to cross-geographic boundaries, the participants rated e-mail as a popular form of communication (Stafford et al., 1999).

In the interview with a sample of 1,500 internet users, Horrigan and Rainie (2002) found that 84% used e-mails to maintain communication with family members; 70% used advice, and 63% used concerns. These data suggest that people are comfortable with the use of e-mail to discuss personal, intimate issues (Horrigan & Rainie, 2002).

In contrast, Cummings et al. (2002) Found that face-to-face contact was less effective when forming and maintaining close social relationships; Survey conducted by 979 National Bank employees and 39 students found. Some study studies focused

on communication in non-Internet and Internet connections mediated in face-to-face, telephone, or electronic format. In comparison, participants rate e-mails as an inferior means of maintaining personal relationships as compared to face-to-face and telephone communication, they found that the relationship is stronger predicted more accurately (Cummings et al., 2002). Shklovski et al. (2008) described e-mail as hygienic instead of as a proactive or strategic relationship-maintaining component requiring an activity threshold under which relationship-maintenance is decreasing.

In a study, the content of college students was examined to examine e-mail messages for close as well as distant relations. The results showed that family uses it most often and friends for self-disclosure, discussion of social networks and positive expressions, and romantic partners used the channel for expressing assurances as well. Stafford and colleagues also evaluated, through telephone interviews, the use of an e-mail finding, which is used most often to communicate between people and that the use of e-mail helped them maintain meaningful personal relations (Johnson, 2008).

Technology-Mediated communications increasingly have been becoming relevant to individuals' everyday life. It has entirely transformed communicators and their communication to its widespread use. In order to enhance its comprehension and its function in interpersonal communication, ICTs in communication can be divided in different parts. These different segments are like socials networking, text communication, nonverbal cue-based communication and video chat, etc. many other ways of interpersonal communication. ICTs provide us with different types of tools for interpersonal communication, such as- Computer-mediated communication and mobile mediated communication (Bos et al. 2002).

Bos et al. (2002) reported four categories of Computer-Mediated-Communication channels for trust development. In their study, they discussed that to make trust in the virtual world at the distance level, and we need to use rich media to communicate. They studied the emergence of trust in a social dilemma game in four different communication situations such as face-to-face, video, audio, and text chat. They found out that video and audio communication as like as face-to-face communication. They also found out that richer media such as video and audio generally better for trust-building and trust maintenance, but face to face is still the gold standard. On the other hand, emerging tools media type and collaboration settings are increasing our understanding of how mediated communication affects trust-based

relationships interact and having significant benefits for virtual teams of all kinds (Bos et al. 2002).

Selwyn, (2003) researched, “Apart from technology: understanding people’s non-use of information and communication technologies in everyday life”. He indicated on the basis of the digital divide that people, who are making little or no use of information and communication technologies remain weak. He found out that the development of a systematic and objective understanding of individuals and non-use of new technologies made a major challenge for those individuals who want to map and understand the social realities of the information age. This study found out the deeper conceptual understanding of people’s non-use of new technologies; why people may not use ICTs in their day-to-day lives based on people reading technology that is excluded or peripheral to ICTs (Selwyn, 2003).

Koo et al. (2011) conducted research on “How social aspects moderate the relationship between task characteristics and usage of social communication technologies in organizations. They discussed the increasing significance of communication technologies become a new platform for information processing, resulting in business process transitions and increased benefits. In their study, they applied media richness and social theories and investigated how social communication Technologies used by an employee to fit his/her task characteristic; how the social relationships of employees influence moderated media use and how utilization influence task performance in the current work environment. For their study, they have selected five media such as telephone, video conferencing, email, instant messaging, and blog and used hierarchical regression approach. They found out that task characteristics were related to media usage, and social factors moderated the degree of the relationships. Means some factor is important for specific media. Finally, they found out that media usages influenced task performance positively (Koo et al., 2011).

Morey et al. (2013) conducted a study on “young adults’ use of communication technology within their romantic relationships and associations with attachment style”. For this, they did an online survey with two cohorts of undergraduates on their dating relationships in the use of communication technology of the years 2009 and 2011. For this, they examined how attachment and communication technology correlated to each other in maintaining a relationship and quality of romantic relationships such as relationship satisfaction, intimacy, support, and conflict. They found that participants supported communication technology (phone, text messaging, social networking,

email, etc.) to increase their attachment style and frequency of communication. They argue that text and social networking sites were more frequently used in 2011 than in 2009. They argue about the reason for the lower and higher quality of relationships. Attachment theory applied to understand the use of communication technology in romantic relationships. To measure the attachment score, participants' avoidance and anxiety attachment dimensions were used (Morey et al., 2013).

Chan (2014) proposed the term "Multimodal Connectedness" refers to "the different ways in which people maintain contact with one another in their daily lives" (Schroeder, 2010). He discussed on multimodal connectedness and quality of life: In the context of examining the influences of technology adoption and Interpersonal Communication on well-Being across the life span. In their study, he examined the relationship between the different types of technology used for social interactions and well-being across life. His study based on the assumption that media multiplicity, multimodal connectedness, and frequency of strong tie enhanced communication for well-being which is only for older age cohorts (35-54 and 55-70) and young adults (18-34), multimodal connectedness and frequency of work tie communication diminished well-being. He studied that human has a fundamental desire to maintain social relationship, which provides positive affective and cognitive benefits, such as happiness and self-esteem (Baumeister & Leary, 1995). He focused that quality of life positively related to physical, mental, and social outcome and involvement in civic life, higher income, and greater job satisfaction increased lifespan with less developing mental disorders (Diener & Seligman, 2004). Well-being research of Diener & Seligman (2002), has shown that happy people have more friends, and they have more satisfaction in their relationship. He found out that different people used a different technology to maintaining a social relationship across the lifespan, with strong and weak ties (Diener & Seligman, 2002).

Goodman-deane, et al. (2015) conducted research, which is based on previous studies that show relationships between the use of communication technology, well-being, and its effect on personal relationships. Goodman-Deane, et al. (2015) argue about its positive and negative effects, which depending on the type of communication technologies and nature of relationships which include overall satisfaction with life and satisfaction with close and extended family, and close and distant friends. To know the satisfaction, they used a richer communication method and found a more positive impact on relationships. The study found that communication technologies are

differently associated with life and relationship satisfaction and having positive and negative associations. They found that richer communication method which includes face-to-face communication, video calls, and phone calls. On the other side, they argue that instant messaging and text messaging were less associated with family satisfaction. Overall, this study revealed that different communication method is differently associated with life and relationship satisfaction, which correlates to the researcher study on uses and effects of Information and Communication Technology in Interpersonal Communication (Goodman-deane, et al., 2015).

Ranney & Troop-Gordon (2015), Study the “Impact of Information and Communication technologies on conversational processes and experiences in the context of digital problem-focused discussions. In this study, they relied on experimental designs with that type of unfamiliar adult who engages in relatively superficial conversation to know the effects of information and communication technologies (ICT e. g texting, Instant messaging) on conversational processes and socioemotional well-being. They found out based on the observation that most individuals the degree to exchanged information, dwelled on negative effect, rehashed problems, and speculated about problems. They also observe that participated rating of self-expression, similarity, and self-disclosure, positive and negative affect with closeness the friend. This study revealed that discussing problems through ICTs was indirectly related to dampened closeness (Ranney & Troop-Gordon, 2015).

Some study discussed that mobile device is a typical device used for maintaining private relations through relationship expression and social coordination in comparison to other media (Campbell & Park, 2008; Katz & Aakhus, 2002; Ling, 2004, 2008).

Habuchi, (2005) noticed that beneficial impact on the intensity of network links on the binding capacity of mobile communication, which can lead to 'telecocoons' of the like people. Some studies have used to "*virtual-walled communities*" (Ling, 2004) phrases for mobile-mediated interpersonal communication, and many used "*intimate full-time communities*" (Matsuda, Ito, 2004; Nakajima et al., 1999) to characterize this phenomenon (Habuchi, (2005).

Mobile communication, in relation to text exchanges and information retrieval, also offers a new dimension to flexibility, enabling users to speak to others about problems. Although this may also be applicable to other forms of sociability, mobile interpersonal communication has nuances that appear to strengthen its position in the

private sphere to the extent that it can even promote insularity among some of the users' close relationships (Habuchi, 2005).

2.3.1 Social networking sites (SNSs)

With the development of social networking sites, people have been able to maintain relationships with relative outsiders, although they have separated over time and distance. For example, members of chat rooms often talk to people who are either anonymous or just online. Other people may use the Internet to maintain long-distance ties with people they have met face to face, which can include friends, family members, and acquaintances. These technologies broaden the interpersonal communication methods, enable people to meet common interests online with strangers, and increase opportunities for mass communication (El-Jarn, 2015).

Dunbar & Roberts (2010) asked whether CMC allows larger network sizes. To this, Ellison et al. (2007) have given evidence that CMC actually allows for larger network sizes. The quality of relations in CMC and face-to-face communication have examined in the research study. (Ellison et al., 2007). Whereas past research has considered the social impacts of CMC technologies, few studies have tried to develop an understanding of why CMC technologies succeed. However, the present study has been focused on every aspect of social networking sites to maintain interpersonal communication and other activities.

Some surveys show that the internet is not socially friendly, while others found that the internet helps to maintain existing friendships rather than helping to form new friendships. CMC has produced conflicting results with CMC (Kraut, 1998). In addition, some studies of the impact on social relations of online communication have shown a positive correlation to communication using e-mail and other chat applications but a negative correlation when users take on lonesome tasks, such as surfing the Internet (Zhao, 2006).

Social media promotes communication to new levels and is an all-round way to interact with friends, families, enterprises, and even acquaintances. The technology enables persons to archive previous communication, control the flow of information completely, and provide an identity for an individual or group. Rheingold (1993) called it (technology) the capacity to link intimate online networks together. This contrasts with the opinion that the technology of social networking offers only the impression of the group or categorical identities, which are less than Calhoun's (1998) relationship in the real world (Parks & Floyd, 1996).

Researchers think that the internet changes social and economic life and can make people socially isolated and disengage themselves from authentic social relations. Over the last 35 years, according to Putnam (1995), there has been a widespread decline in citizen's social participation as people vote less, churches go less, and talk less about their government to their neighbours (Putman, 1995). A study by Kraut et al. (1998) found that Internet use is harmful to interpersonal relationships in the real world. They used the term Internet paradox in the context of increasing Internet-based connectivity and working in real-world connectivity. In contrast, another study of Kraut et al. (2002) found that participants who use the Internet more have increased in size and contact between their friends and family. Kraut et al. (2002) also found in their study that the prevailing use of the internet at home is interpersonal communication, which was not the implication that their social interactions and relations on the internet were identical to their traditional social interactions and relations. People want to use the network, and the use of social networking sites online seems to satisfy needs that differ from using e-mail, chat, and blogging tools (Kraut et al., 2002).

Walther (1992), notice that contact and physical presence in online ties are limited. For instance, sharing on-line activities, like playing games or visiting websites, differ from off-line activities like going to movies or dining. However, there are unknown differences between the relationship between those that use CMC primarily and those not, which remain possible interceding variables (Walther et al., 2004).

Social networking sites like Facebook enable users to display information, pictures, and messages on their personal side. High or low confidentiality can control the information visibility of a number of users or allow open access to everyone who uses the Internet. Ellison et al. (2007) noted that social networking sites users are benefiting social because it provides an accessible way to broader and more heteromer networks (Ellison et al., 2007). Donath & Boyd (2004) coined the concept of "public shows of connections" to suggest that persons confirm their identity through their online social connections to demonstrate their social skills (Donath & Boyd, 2004).

In large part, researchers suggest that SNSs is used for connecting relationships that had already been established rather than new relationships (Ellison et al., 2007). Donath & boyd (2004) argue that the SNS's main function is to maintain connections in an extended social network. These sites not replace but enhance the range of methods used by individuals to maintain relationships. They offer complex

systems in which relational stability is maintained through relationships and discreet relation-based behaviors, such as comments or notes (Donath, & Boyd, 2004).

Many SNSs, for example, MySpace and Facebook, offer people a choice of whom they can view their profile. Profiles can be used to prevent unauthorized users from accessing personal data and may only be accessed or edited through a log-in and access code that identifies a user. This feature does not stop abuse, however, because fake profiles can be made to trick spectators. A 2008 government panel (2008) concluded that technological corrections such as age verification and scans are rather ineffectual ways for the apprehension of online predators. In a study conducted by Liu & Maes (2005) with 4,000 Facebook users, people were found open and prepared to provide a large volume online of personal data.

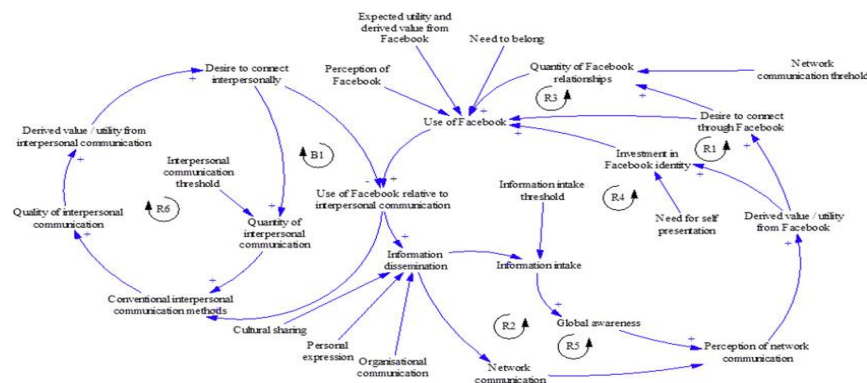
Previous studies, which studied the motivation for the use of SNSs, showed users could gain a better understanding of the subject matter and sense of connection to the world for some time. One study found that university students to connect with each other use Facebook and MySpace. Some studies have found that SNSs encourages people to use it with its attractive features. Subrahmanyam et al., (2008) also found that the motivation of college students to have a Facebook account came because all their friends had Facebook accounts (Subrahmanyam et al., 2008).

Social networks on the Internet used to strengthen existing relations and can thus be used to connect online and offline. A USC-Annenberg Digenic Future Project (2006) Internet usage survey found that 43% of online users feel the same about their online communities as they do when communicating with them in real life (Giffords, 2009). A further study of young people shows that participants who have developed friendships and relationships online see them as real as relationships in their real lives. In addition, these online friendships have been described as long-term, trusting, and significant (Mishna et al., 2009).

It was found that online interaction provides a way to tolerate different opinions, learn, and cite, to express thoughts and feelings in a healthy way, and to practice critical thinking skills. Another advantage perceived is that the internet increases contacts and improves self-esteem and well-being. Furthermore, in the context of social networking, the Internet offers a virtual space where you spend time-sharing your thoughts and things with personal meanings such as pictures and history (Hinduja & Patchin, 2008). In addition, individuals feel empowered to build relationships with information, mutual support, and support through social networking.

Finally, it was found that young people living with difficulties use online relationships as temporary bridges that lead to safe and comfortable relations between themselves (Wolak, et al. 2003).

Davies, et al. (2016) researched the effect of Facebook on interpersonal communication and investigated the tension between the use of Facebook and the quality of interpersonal communication. In this, they identified the need to belong and the need for self- presentation in a complex relationship that shows why people use facebook. They used qualitative system dynamics modeling to analyze the tension between Facebook users and the quality of interpersonal communication of Facebook users. They also used Casual loop diagramming, which is the most utilized tool for qualitative system dynamics analysis to know the tension of Facebook users and the quality of interpersonal communication. By loop diagrams, they found out that Facebook is important to substitute for the connection in interpersonal communication. They also found out through casual loop diagram facebook is important in developing networks during strategic and useful loose connection, and it also important for strong interpersonal communication of personal development and fulfillment. They also discuss the archetype represented by the trade-off as considering the amount of time spent on Facebook and interpersonal communication (Davies, et al. 2016).



Source: <https://www.semanticscholar.org/paper>

Figure 2.3: Causal loop diagram of the use of Facebook relative to interpersonal communication

2.3.2 Instant Messaging and Communication

Instant messaging (IM-ing) involves sending in a conversation that has established itself in real-time, online computer messages to another user. Researchers found that IM-ing is the best-known way of communication between young people who go online, with 75% and 48% using it at least once every day (Hinduja & Patchin, 2008). IM is usually private and provides young people with an opportunity to practice and develop their social relations. Internet surfing and IM can be closely linked to

problems internalization due to the finding that young people spending more time in IM spend more time surfing too (Selfout et al., 2008).

The intimacy of a friendship group was investigated by Hue et al., (2004), which showed a positive correlation between IM and intimacy. Emoticons promote self-expression and compensation for lack of contact between people. Combined pictures, colors, and text give other emotional expressions that enhance communication (Tidwell & Walther, 2002). These non-verbal forms of communication extend beyond the limits of pure text environments. In contrast, the study carried out on the use of emoticons in CMC by Walther & D'addario (2001), found that the text had a more significant impact on effective communication (Tidwell & Walther, 2002).

The maintenance of relationships can also be identified within IM. Nardi et al. (2000) conducted a working environment ethnographic study and determined that maintenance of relations is the primary usage during working days. The ties maintained, however, were not with colleagues but with family and friends (Nardi et al., 2000).

Research has demonstrated that CMC serves to maintain relations, but it also reveals that the use of CMC does increase the quality of relations. It has been shown that instant messaging has a positive effect on youth friendship quality in the longitudinal study about youth friendships and instant messaging use (Valkenburg & Peter, 2009). Similar findings also included the use of instant messaging for relation creation, maintenance, and relationship improvement in another study for adolescents (Lee & Sun, 2009).

Face-to-face communication is effective for initiating and maintaining relationships, but many recent findings have demonstrated that computer-mediated communication (CMC), like Instant Messaging, benefits interpersonal relations (Chung & Nam, 2007). Innovation in technology can now be transmitted via IM customers to both visual and audio contents that improve bidirectional communication and social presence. According to the theory of social presence, *"the existence of face-to-face interaction and social affection is absent,"* when customers operate a medium tool (Rogers, 1986).

The invention of different kinds of software instant messaging is designed to respond to the demand for social presence in computer media, for example, ICQ, Windows Messenger, and Google Talk. These apps are quicker and better than e-mails and other traditional methods of interaction, which attract more technology consumers

(Lin, et al., 2007). As IM is turning into a well-known vehicle for relational communication, Avrahami and Hudson (2006a) show that IM communication qualities vary altogether for clients in various connections (Lin, et al., 2007).

2.3.3 Texting and Communication

The SMS commonly referred to as "texting," is the mobile phone version of IM, resulting in virtually instant messages between the sender and destination. Crabtree et al. (2003) found in their study that both the amount of traffic and revenue in the last quarter of the decade would dominate mobile messaging (Reid & Reid, 2007). In 2001, participants in Norway's 19–21 years of study were found to send an average of six texts a day. When in 2007, the same age group was again measured, the average number of 18 texts sent per day tripled (Ling, 2010). A study carried out by the Pew Research Center on 2,277 American adults found that 18 to 24-year-olds sent or received an average of 109.5 text messages every day, which is more than 3,200 text messages a month (Smith, 2011). In a European study of 635 people aged 16-55 visiting a website and completing an online survey, 48.9% reported using their mobile telephones for voice calls, and 26.1% reported using too much text. This research also assessed levels of isolation, expressive power, concern about contact, and participation in conversations. Which Found that 61% of participants used text for that type of conversation that they not able to say during face-to-face, and 64% said that to share their true feeling they only preferred texting than another medium (Reid & Reid, 2010).

According to Braun (2007), texting is also known as Text messaging; it used for sent and received a short messaging through a mobile phone or the internet. Texting and text messaging refer to use to send short messages through mobile phones. It has also become a part of the common lexicon. There is no doubt young adults are all over the world are the forefront of the text messaging trend. Behaviors of text messaging all over the developed world show similar patterns of users. According to Mante & Piris (2002), in netherlands, SMS is very frequently used among teens. Reports of Vershinskaya (2002) show that in Russia, uses of SMS among teenagers are also becoming increasingly popular and the patterns of languages are changing. Ito (2005) discussed among Japanese teenagers, the proliferation of text messaging.

Oksman, & Ruatiainen (2003), reported in Finland that the highest in the world of mobile phone penetration, and extensive use of text messaging among teenagers. Without any doubt, according to Lenhart, et.al (2010), USA Teenagers are using texting as their main mode of communication. Another study of Asia, Europe,

and North America also reveals that teenagers and adults have attraction and attachment to text messaging.

Besides this, social and cultural factors unusually influenced text messaging and way of interaction. Thurlow & Bown (2003) discussed in their study that through texting, the new and smart online 'net generations' are innovating conventional lingual along with communicative practice. No doubt, shortcut and abbreviation texting have created the emergence of a new pattern of a linguist and new structures of grammar rules (Thurlow & Bown, 2003). Oksman (2006) said, "Young people have acted as developers and pioneers of the SMS culture" Unquestionably, digital texting patterns have changed the structures of conventional language in an enormous way. The researcher has a study on a linguistic feature of texting that changes the overall conventional communication patterns (Oksman (2006).

The book on "Txtng The Gr8 Db8" by british linguist David Crystal (2008) reported that the original research is credited to the UK Literacy trust. These names are the following:

"Texting fogs your brain like cannabis

Texting does not influence literacy skills

Texting replaces speech for communication among teenagers

Texting deprives children of sleep

Texting linked positively with literacy achievements

Texting helps shy teenagers communicate

Teenagers to get free mobiles to improve literacy standards

Mobiles prove effective in getting NEETs back into learning."

Mohabir (2013) has focused on text messaging phenomenon among teenagers and young adults. Mohabir thesis "English Language Butchered: A study of the correlation relationship between text messaging frequency and the Instance of Jargon in formal writing" discussed text messaging jargon forms such as alternative phonetic spelling, vowel deletion, and alphanumerics were identified. The aim of this study was to investigate the correlational relationship between the frequency of the text messaging and the instance of text messaging jargon in formal writing. The correlation between the students' language ability and an instance of text jargon was also measured. The finding shows that high-frequency texters generally tended to have more text jargon in their formal writing. Besides, of this, low language ability generally displayed more text messaging jargon in their formal writing, whether they are high or

low-frequency texters. The finding also shows that adult youth do not think that texting influence formal writing skills (Mohabir, (2013).

From the scholarly research done by Hemmer, H. (2009) study on the topic of Impact of Text messaging on communication has found that in face-to-face communication, text messages have a displacement effect. Text messaging is not only the technology that has the displacement impact, however. This study discussed that most users do not know that when they use text messages, they replace face-to-face interaction. This study also found that not only text messages but also all-new technology displaced face-to-face communication (Hemmer, 2009).

2.4 Replacement of Face-to-Face Communication and Communication Technology

Personal interaction is an important part of the human experience and has always been it. Before the technological revolution and the creation of personal computers and cell phones, relationships had developed through face-to-face interaction and oral or written communication. The progress of the information age, which is characterized by the capacity of people to access information and to exchange information freely and conveniently using technology, has further transformed the way our society interacts with each other (Drussell, 2012).

Face-to-face communication can be recognized for video conferences. Kirk, et al. (2010) found that people feel closer to the remote relationship by using video instead of alternative CMC technologies. If the video link remains open for a remote person to be viewed at selected times, a shared family life experience is possible. One aspect is the need to communicate with individuals that both parties should be available simultaneously (Judge et al., 2011).

Video conferencing in an extended family environment has become more common and cost-effective. The theory of media richness recognizes the significance of the much evidence found in face-to-face video chat, such as facial expressions, vocals, and body language. Video communication can provide a richer experience for those involved with natural language and common talk. The theory of social presence has relevance within a video framework since participants can become more aware of emotions and the state of mind of other parties (El-Jarn, 2015).

Some scholars argued that it is important to maintain face-to-face interactions; others argue that the use of phone calls, social networking sites, texting, and instant messaging are more useful for maintaining distant contacts. TMC can release interpersonal relations from physical location and create new, but genuine,

personal ties and communities. However, certain studies showed that CMC reduces the physical context (Parks & Floyd, 1996).

Baym et al. (2004) compared online interactions in which students preferred to have face-to-face interactions with local contacts while maintaining their distance relationships via the Internet and the telephone. Although the students used the Internet to maintain close relations, more conversations that are intimate were conducted on one side or via telephone calls. Chen et al. (2002) study found that more e-mail was used with friends and for longer distances than with families. They also found that the Internet is considered as the dominant mode for maintaining friendly relations.

In the same context, Dimmick et al. (2000) also found that e-mail is the preferred method of maintaining distant relations. They found that the telephone is inferior to e-mail in a long distant relationship. Other reports of online interactions, like e-mail, can be used as a replacement for face-to-face interactions (Cummings et al., 2002).

Gonzalez (2008) further suggested in their study social network sites like the Friendster or MySpace do not give families the privacy they encounter through face-to-face relations, although they provide some form of communication between displaced persons. However, Miller & Slater (2000) demonstrated in their study that technology has helped diasporas groups maintain relations, cultural and religious affiliations, and provide advice on work, education, accommodation, and social activities (Gonzalez, 2008).

Several studies also found that the communication level resulting from the use of CMC versus face-to-face is also lower. In one study evaluating performance and satisfaction levels across three communications patterns such as instant messaging, video conferencing, and face to face. It was found that all three patterns of communication were equally effective, and performance was not lacking (Simon, 2006). Conversely, the study by Mellen (2003) compared face-to-face and CMC satisfaction levels after participants completed tasks. The CMC environment in terms of satisfaction, proximity, and processing depth was found to have been lowered (Perry, 2010).

One study evaluated strange dyads for confidence in the communication of the messages and their accuracy in CMC, voice-only, and personal interpretation. In which participants were directed to deliver script messages with specific characteristics and to measure the receiver's trust in communication and the accuracy of

communication. The results showed that in voice communication or face-to-face conditions, dyads were accurate (Kruger et al., 2005). During the initial meetings, research by small groups found that users in the CMC environment reported greater satisfaction and task performance. However, over time, the difference in task performance decreased, and, regardless of the environment of communication, users reported similar levels of satisfaction in communication. This shows that CMC is probably useful for those who adapt to the channel. These findings affect the theory of media naturalness since it is possible that the channel can be perceived to be more natural by increased use and knowledge of technology (Hollingshead, 1993). According to Spitzberg models (2006), co-orientation, efficiency, success, satisfaction, and the development of relationships are more likely to occur when CMC competence increases (Hollingshead, 1993).

Walther's theory for processing social information suggests that CMC users can adapt to the channel with effective intentions in textual indicators. This theory has found support from studies indicating that users have reported equal transmission of effects between the CMC and face-to-face communications partners (Walther & Burgoon, 1992). One of them was an experiment in which participants assessed the effects of dyads in face-to-face or online chatting, and results showed that there were effective similarities between conditions (Walther et al. 2005).

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In another study, communication between face to face and CMC using dyads was compared. It was found that interpersonal sensitivity does not seem much to vary under conditions, with CMC users seemingly as sensitive as in a face-to-face environment to the thinking and feelings of their partner (Boucher, 2008). Derks & colleagues (2008) conducted a study of CMC literature with the purpose of examining whether emotions communicated in different ways and found that CMC has no less emotional or personal than face-to-face communication (Derks, 2008). Computer-Mediated-Communication specific communication signs are also a form of adaptation. Derks and colleagues conducted an online survey of the use of emoticons, an experimental component in which participants were asked to respond to online chats. Results suggested the use of emoticons to express emotion, reinforce a message's content, or convey humor (Derks, 2008).

A study conducted on phone interviews with adolescents showed the high use of computer-mediated communication of participants, as well as preferred face-to-face communication. Participants were requested to discuss recent communications with friends or family members online as well as offline nature. Results suggest that while teens perceive IM as less pleasant than offline, Instant Messaging is still used for communication with others in a higher frequency (Boneva et al., 2006). The author and others (Simon, 2006) were puzzled by the observation that while CMC is highly used by users, less satisfaction with the communication experience is reported. One explanation can be that knowledge of communications partners and channel adaptation creates a mode of communication that is comparable and helpful, although not superior to face-to-face (Perry, 2010).

Computer-Mediated Communication (TMC) is used for romantic relationship maintenance in a variety of ways, which is a supplement of face-to-face interaction, telephone use, letters, etc. Rabby (2003) said that the simple act of transmitting a message contributes to maintaining the relationship. It allows the other partner to know he or she is in the mind of the other person (Rabby, 2003).

Karemaker (2005) proposed a short study on face-to-face or mediated communication: personality makes a difference. This study illustrates the use of e-mail, instant messaging, SMS, and mediated human communication has become increasingly part of interpersonal communication in the context of social interaction with

communication partners like friends, relatives, and acquaintances. The study investigated the individual character in the evaluation of computer communication (CMC) as a significant measurement of individual differences. The research results anticipated that stable extraverts are more likely to favor face-to-face contact than neurotic introverts are over mediated interaction. The study found that no mediating impact from the scenario where the excitement is forecast to strengthen the impact. Therefore, the results of this study showed that the importance of acceptability of communication technology and its use for social interaction has relevance (Karemaker, 2005).

Another study, Online communication versus real (face-to-face) interaction in quality of life, seeks the importance of the internet in quality of life. It explores that whether online communication serves like face-to-face interactions to improve the quality of life or not. This study found that the use of the internet for interpersonal communication was not the same as face-to-face communication (Paul et al., 2010). The impact on the perceived quality of life in online communication is contrary. The comparative absence of powerful links or the profound quality in Internet communication is no reason why internet communication has no adverse impact on the quality of life (Paul et al., 2010).

Campbell & Kwak (2007) Found that the use of the technology for communication and recreation is a favorable predictor of involvement in public life; however, the associations are moderated with mobile communication competence (Campbell & Kwak, 2007). Some studies suggested that the use of the internet could displace face- to face interaction sociability (Nie & Erbring, 2000; Nie & Hillygus, 2002). However, other studies enjoying and celebrating new ways of connecting with others (Hampton & Wellman, 2001; Rheingold, 1993; Wellman, Boase, et al., 2002).

2.5 Non- Verbal Cues in Digital Interpersonal Communication

Theory of symbolic interactionism explains how human beings define situations, experiences, and interactions, based on their perceptions and self-esteem. The way someone reacts to different situations depends on the meaning they give based on past experience, relations with others, and their interplay with society in general. The theory describes the product of interactions as a symbol and illustrates that the term interactions are defined as any communication between two or more individuals, whether verbal or non-verbal (Smith & colleagues, 2008).

Increased usage, adaptation, or familiarity with one's communication partner can be particularly important to expectations or decisions about its use because any new symbol or observed occurrence has a complex significance. Meyer & Perry (2001) explain symbolic interaction pragmatics:

“As events occur for individuals, meanings change because of interactions. When participants discern nonexistent or small differences, the change is akin to reinforcement of previous meanings. When they find more substantial differences, meanings can be altered in fundamental ways”
(Meyer & Perry, 2010, p. 18).

Derks, et al. (2007) mentioned in their previous study that Emoticons could be used as "nonverbal surrogates" in online communications to convey information, standardize the communication, and convey feelings and closeness. Most emoticons are understanding and usually well-known images among users of Electronic-Mediated-Communication. Emoticons, in absent of text-based electronic mediated communication, often act as surrogates or substitutes of nonverbal cues (Derks, et al. 2007). The communication channel cannot only influence whether users can accurately interpret a message's content, but also how users can accurately interpret emotions within a message (Byron, 2008). Byron points out in a theoretical model of email use that a lack of non-verbal signals makes it difficult to perceive the emotions accurately and that receptors can attribute to messages more neutral or negatives than intended senders (Byron, 2008).

Friedman & Currall (2003) continue with an exemplary discussion of how email usage in a work environment can encourage conflict escalation. They suspect that the e-mail structure lowers feedback provides minimal social indications, increases "piling" or "bundling of arguments" that users can create lengthy messages, and that the text-based nature of e-mail enables both senders and recipients to over-attention or rumor to message. All of these factors contribute to incomprehension and frustration, which may lead to increased conflict (Perry, 2010).

2.5.1 Emoticons (:-) in Interpersonal Communication

The definition is given by Danesi (2009) from his study Dictionary of media and communications String of keyboard characters that, when viewed sideways (or in some other orientation), can be seen to suggest a face expressing a particular emotion. An emoticon is often used in an e-mail message or newsgroup posting as a comment on

the text that accompanies it. Common emoticons include the smiley ‘:-)’ or ‘:)’ and the winkey ‘;-)’ and the yawn ‘:-O’, among others (Danesi, 2009).

In the same context, Stapa & Shaari, (2012) study on “Understanding online Communicative Language Features In social networking environment” found that emoticons are sometimes used in text messages as a compliment. In their study, they investigate the language features and patterns of online communicative language. Which is based on Malaysian facebook young users, found that features used by online users are spelling innovations, modifications, combinations of the letter, number homophone, and reductions or omission of vowels. Besides, the Replacement of “s” with “z”, the use of one letter to represent a word, the use of playful jargon, the used of acronyms and abbreviations, and the use of emoticons (Stapa & Shaari, (2012).

From the review of scholarly research done by Jibril, & Abdullah (2013), Study on the topic of “Relevance of Emoticons in Computer-Mediated Communication Contexts: An Overview” has found that emoticons do not just serve as paralinguistic elements rather they are compared to word morphemes with distinctive significative functions. This means that these units are like morphemes and may be derivative, inflexive, or abbreviated, but not boundless. Furthermore, the study also found that emoticons could not be conventionalized but also paralinguistic components, so they should not simply be countervailing for language as a contribution to the discussion (Jibril, & Abdullah (2013).

Derks, et al. (2004) conducted a study on “Emoticons and social interaction on the online (Internet)” In this, they examined the influence and uses of emoticons in Internet communication, and compared emoticons is similar to face-to-face communication or not (Derks, et al. 2004)

According to Ekman & Friesen, (1969), and Harrison, (1973) in nonverbal behavior face-to-face communication depends on three functions such as:

- i) providing information,
- ii) regulating interaction, and
- iii) expressing intimacy

Therefore, this study assumed that emoticons could serve at least partially similar functions in computer-mediated communication. They found that users used more Non-verbal cues (emoticons) in socially than in work-oriented social process. This study also found that users are used more positive emoticons in a positive context and negative emoticons in negative contexts (Ekman & Friesen, 1969; Harrison, 1973).

Ptaszynski et al. (2011) conducted research on “Emoticons: Review of the research Framework”. According to them, emoticons are strings of a sign indicating body language in text communication, and in ordinary speech, processing, emoticons have been considered as unnatural language entities. They discuss on over 40-year-long history of text communication; in this discussion, emoticons have gained a status of an indispensable means of support for text messages (Ptaszynski et al. 2011).

Kelly (2015) researched on the “language study of the understanding of emoticons and emojis in text communication” to know the uses of emoticons and emojis in text messaging. The aim of this study was to determine the universal understanding of emoticons, and emojis use every day. Relevance theory, Saussure, Peirce, and thomas' prospective has used to analysis of its results. The study found that the emoticons and emojis do not have meanings themselves and may differ according to the scenario and the mood or individual who intends the signal (Kelly, 2015).

Dunlap et al. (2016) conducted the study on what sunshine is to flowers. It based on the literature review. In this, they discussed the use of emoticons to support online learning, to know that uses of emoticons support online learning and improve teaching and learning process. They found that emoticons not only supported the teaching and learning process but also improving communication for second language learners. Some studies have also evaluated how or when individuals use emoticons for communication in a particular message. Studies have shown that emoticons are generally positioned in written discussions as closers, openers, or interjectors (Dunlap et al. (2016).

Provine, et al. (2007) researched on the ‘Emotional expression online: Emoticons punctuate website text messages’ and found that emoticons use place of the punctuation effect such as occurring at pauses, phrase boundaries, and the beginning and ends of any statements and questions (Provine, et al. (2007). Derks et al. (2008) discussed in their study that it is not important that emoticons always improve communication; sometimes, it can lead to miscommunication and misunderstanding. Some studies found that miscommunication and misunderstanding happen because of a lack of agreed-upon definitions of emoticons (Averianova, 2012; Chen, 2006; Loewen & Reissner, 2009).

Emojis can make communication increasingly proficient, successful, clear, and fun (Huang, et al. 2008; Kindred & Roper, 2004; Varnhagen et al. 2010). According to Dressner and Herring (2010), there are three main reasons people use

emoticons for communication. First, individuals use emoticons to show emotion through facial expressions. For example, “:-)” means sorrow--, which reflects an emotional state in this situation. Secondly, emoticons are used to show non-emotional feelings that are attached to facial expression. For example, “;-)” refers to sarcasm. Third, people use emoticons to show the illocutionary force. For instance, “to say what’s wrong with you? People use “:-||”, and “:-)” (Dresner & Herring, 2010).

In a study carried out by Derks, et al. (2008) found that emoticons are useful at explaining content-based messages in any way. Lo (2008) states that the purpose of a message can be made clear by emoticons, and the intensity of a message's strength also can clear by it. For example, any positive message can be viewed more favorably with smiley face emoticons rather than a message without a smiley face (Derks et al. 2008). Derks et al. (2007) and Fullwood et al. (2013) stated that environment or social context more influences people for the use of emoticons than other variables such as gender, nationality, and age. Researchers have discovered that emoticons are additionally useful at improving communication for second language individuals (AbuSa’aleek, 2013; Beatty, 2003; Crystal, 2001).

However, Halvorsen (2012) found their study that learners used emoticons in their writing, the patterns of use varied from one person to another and were influenced by the previous experience of the individual in Electronic-Mediated Communication. Some studies tried to analyze how or when users use emoticons in a text to improve communication and found that emoticons are used in written communication in place of closers, openers, or interjectors. Few types of research indicate that the use of emoticons may improve the perceived social presence of learners in online learning settings based mainly on text-based Electronic-Mediated Communication (Aragon, 2003; Lahaie, 2007; Tu, 2002).

Gunawardena & Zittle (1997) firstly conducted research on social presence in electronic mediated online learning. They found that students who are more socially active have "improved their socio-emotional experience by using emoticons to convey missing nonverbal symbols in writing"(Gunawardena, & Zittle, 1997). Others study identify that the use of emoticon as an indicator of emotional and affective speech and an indicator of social presence in their model of the investigative community as emoticons (Garrison et al., 2000; Rourke et al., 1999).

Tu (2002), notice that to fulfill the absence of social context cues, students used paralanguage and emoticons. Tu also noticed that learners in communication systems

tended the most to use smiley and frowned-face emoticons. Tu & McIssac (2002) found that most learners react favorably to the use of emoticons, thereby promoting the need for students to use Electronic-Mediated Communication efficiently. In subsequent research, Yamada and Akihori (2007) found that the use of emoticons by students increased their feeling of social participation. In their research, they also notice that emoticons have often been used by students to give other students replied on their posts. In another study, Cobb (2009) found that 70% of learners in an internet-nursing program used emoticons. So on behalf of some scholarly research, it is sensible to expect that learners to be more skilled at utilizing paralinguistic's; and emoticons as part of electronic communication for both private and education reasons; to create a social presence and to provide information that is filtered out from electronic communication (Dunlap et al. 2016).

Goertzen and Krisjansson (2007) found in their study that “Paralanguage and emoticons allow individuals to project a feeling of character, familiarity and close relationship alongside different degrees of solidarity and harmony, and a social presence that is crucial for the enhancement of the community's sense of belonging and social cohesion”. To avoid potential conflicts in communication, also paralanguage and emoticons have frequently used that provide an opportunity to getting acrimony or just mitigate the seriousness of a discussion (Stapa & Shaari, 2012).

Some studies have been conducted research on the impacts of Emoticons on Message by Walther & D'Addario (2001). They state that emoticons are “graphic representations of facial expressions”, and found that text has had a better effect on efficient communication. It is not surprising that a symbolic representation of Electronic-Mediated Communication has been discovered as emoticons and smileys, which is a prevalent human response, usually to show happiness. Smileys are two types, first is the emojis (or icon) 🤔, and second is keystroke-based emoticons :-), both have the same impact, which is based on interpretation of messages. In contrast, Wortham (2011) states that smiley has a greater effect than the keystroke-based emoticon on the viewer's personal mood. This might be because of the wide scope of emoticon symbols now conceivable in Electronic-Mediated Communication, or because Emojis represent human expressions more realistically (Wrotham, 2011).

2.5.2 Emojis 🤔 in Interpersonal Communication

Zhou et al., (2017) study on the topic “Goodbye Text, Hello Emoji: Mobile Communication on WeChat in China” have focused on the rapid proliferation of emojis

and stickers and the lessening dependence on the text. They found some reason the adoption of emojis is that text messaging is not always sufficient for communication. It is boring, dry, and limited in the expressiveness they (different platform) allowed. They found that when need to communicate emotions, expressions, feelings, greetings, blessings, and appreciation, people used emojis extensively as non-verbal cues and as “emotion indicators” (Dresne, & Herring, 2010). Most participants said that if they feel happy or if they want to bless or welcome somebody, they are sent emojis to talk more vividly. In the study, it was also found that when you do not have any appropriate word, then emojis helps in communication (Zhou et al., (2017).

Ge, & Herring (2018) conducted a study on “communicative functions of emojis sequences on Sina Weibo”. They examine emojis are becoming a global, digitally mediated language. Emojis sequences that work like verbal utterances may give this assertion solid support. For this, they used Computer-mediated discourse analysis to examine the realistic meanings convey by emojis sequences and their rhetorical interaction with accompanying text, based on posts by social media influencers and their followers on a common Chinese social networking sites. It also found that User innovations, which make more language, sequences, even if the grammar for the emojis sequences has not been established yet (Ge, & Herring, 2018).

Wolny (2016) researched the topic of “Emotion analysis of twitter data that uses emoticons and emoji ideograms.” This study focuses on that is twitter rich sources of data for opinion mining, sentiment, and emotion analysis, and analyzing symbols called emotion tokens, including emotion symbols (e.g., emoticons and emojis ideograms). This study also describes the approach to extending existing binary sentiment classification approaches using multi-way emotion classification. Wolny (2016) found that emoticons and emojis characters can significantly increase precision in recognizing many kinds of emotions (Wolny, 2016).

Vandergriff (2013) found in the study of college classroom discussions that Emojis, non-standard/different accentuations, and lexical substitutes were frequently utilized as a protection approach if the participant did not freely oppose this idea. Emojis can also be utilized in an entertaining manner, and it has to pleasantly differ just as to pass on complex importance like mockery and unimportance (Vandergriff, 2013).

Knapp & Hall (2005) found that Interactions between human-human and human-machine require nonverbal communication, i.e., the utilization of nonverbal

signs (facial expressions, vocalization, gestures, etc.) that contribute meaning to the words being expressed (Knapp & Hall, 2005).

Emojis/emoticons use, or all the more largely, the compelling utilization of EMC (Electronic –Mediated Communication), can be seen as a kind of literacy (Fullwood et al., 2013). Huffaker & Calvert (2005) stated that Emojis use is likely changing as individuals turned out to be increasingly educated with Electronic-Mediated Communication; as such, overall, emoji use is changing as individuals change (Fullwood et al., 2013).

Richmond & McCroskey (1995) stated that Nonverbal signals transmit data on social and psychological elements of interaction, including attitude, state of affairs, emotional conditions, conflicts, social upside-down, role etc. (Richmond & McCroskey, 1995)

Vinciarelli et al., (2012) found that approximately 25% of the time spent on nonverbal communication during the telephone calls confirms people's readiness to spend one-fourth of their time on nonverbal information if it is possible to speak and display nonverbal indicators at the same time, as is the case with face to face interaction (Vinciarelli et al., 2012).

Similarly, other work conducted by Segalin et al. (2017) and Xiong et al. (2016), demonstrate that the image that individuals like on the web pass on a character impression, not uniquely in contrast to those that individuals show in face-to-face interactions (Segalin et al. (2017); Xiong et al. (2016)).

Cristani et al., (2012) discussed that patterns of the typing expressed in internet textual chats are so unique that they are used for recognition of the person and are no different from speaking patterns, face, or fingerprints (Cristani et al. 2012)

2.6 Textisms (abbreviations) in Interpersonal Communication

Rice and Love (1987) found that socio-emotion communication could be supported by the CMC system. Feelings of face and behavior have been transformed into online emoticons to some extent. For example, smiley or sad faces or capital letters are to be used to indicate SHOUTING. The visual suggestions Walther (1992) notes that these concepts the message and become conventions among CMC users. Dunbar (1998) says that many language communications online are based on a metaphor. For successfully communicate, understanding the intentions behind the metaphor is vital. However, failure to recognize such purposes usually leads to misunderstanding or inappropriate responses (Dunbar, 1998).

Varnhagen, et al. (2009) researched the “lol: new language and spelling in instant messaging. They analyze that the “new language ” of abbreviations, acronyms, verb combinations, and punctuate appears to have generated the written communication in instant messages, text messages, chat, and other forms of electronic communication. They found that during a text conversation, Shortcuts, including abbreviations, acronyms, unique spellings etc., were most prevalent, followed by pragmatic signals, such use of emoticons, emotion words, and punctuation and typographical and spelling errors were relatively uncommon. The taxonomy is an important tool in investigating the use of new languages, and the findings show in part that new languages do not adversely affect conventional written languages.

Albasheer & Alfaki (2016) conducted a study on “The Effect of Text Messaging on the English Language Aspects and Communication” has found that in the absence of the existing standards; the text messaging violates Standard English rules. It has a big effect on the English language and has a significant effect on communication. It found that in shy and lonely people, word messaging enhances confidence and interaction. They also found that the use of abbreviations leads to differences in the understanding of individual words due to the various ways these words are written. The use of text messaging has grown to a new communications challenge. The study also showed that women tend to use text messages longer and wider than men do.

From another scholarly Research done by Tagg, (2009) study on the topic of a corpus linguistics study of SMS text messaging has focused on how the messaging language, Txt, is influenced by texters who deliberately achieve interpersonal goals. It explores three aspects, firstly it based on the argument that spelling is a meaning resource, variants of spelling are retrieved using word frequency lists and categorized by shape and function.

Secondly, the identification of daily creativity in CorTxt challenges studies that focus exclusively on orthodoxy as a creative resource and suggests that texting plays an important role because of physical restrictions rather than because of.

Thirdly, Word frequency analysis suggests, with references to frequent phrases, that the separate order of the most common words can be explained in CorTxt. This study found that on the basis of corpus investigation, the variation of language in a corpus, adds a description of texting as a language variety its own right, and way of understanding the language of texting lie in the concept of performativity.

Baldwin & Chai's (2011) studied, on Beyond Normalization: Pragmatics of Word Form in Text Messages. This research examined the types of extra pragmatic information that are conveyed by non-standard word forms. The research found that 40% of the non-standard word forms contain emotional information, not in the standard form, and 38% contain additional emphasis. Based on empirical results, they found that character-level features could provide important cues for automatic detection of non-standard forms that display additional information.

From another research conducted by Sproat, et al. (2001) study on the topic of Normalization of non-standard words, and examined the various corporations and identify several non-standard word types, including several commonly seen in text message information such as misspelling, abbreviations, letter-to-sound, and funny spells. The researcher found that in terms of word error rate, standard in voice recognition assessments, which has only been used occasionally as a general measure to evaluate the standardization of text systems.

Pennell & Liu (2010) most recently have been using crafted rules for purpose of normalizing SMS terms with a focus on text-to-speech standardization, which is deleted by characters.

Stapa & Shaari, (2012) study on “Understanding online Communicative Language Features In social networking environment” found that emoticons are sometimes used in text messages as a compliment. In their study, they investigate the language features and patterns of online communicative language. Which is based on Malaysian facebook young users, found that features used by online users are spelling innovations and modifications:

- Combinations of letter and number homophone,
- Reductions or omission of vowels,
- Replacement of “s” with “z,”
- The use of one letter to represent a word,
- The use of playful jargons,
- The used of acronyms and abbreviations and
- The use of emoticons

2.6.1 Text Messaging and Phone Calls

Ramirez and Broneck looked at the maintenance of relationships and the use of instant messaging by university students through surveys and found the most common kind of relationship between romance and friends when using instant messaging. The authors also found that instant messaging is used more than other

communication channels, such as telephone or FTF communication (Ramirez & Broneck, 2003).

TMC has become an important way of maintaining relationships with friends and family members. It has also been found that users prefer text communication (IMs, SNSs) to the telephone. As soon as users become accustomed to the text-based format, the channel can be used in a way that is meaningful and helpful for their daily lives (Perry, 2010).

From the study of several European countries and Israel done by Ling, Yttri, Andersen, and Diduca (2003), observed that text messaging to be permanently connected with participation, while voice calling was most certainly not.

"The findings of the Structural Equation Model showed that individuals who were more capable of expressing themselves via text than face to face and voice calls were more likely to discover that texting influenced their current relations and helped them to create new relationships" (Karemaker, 2005)

2.7 Effects of Information and Communication Technologies on Individuals Behaviour

We use continuous social media evidence to post activities that often reflect the psyches of people and social environments. However, research is still in its infancy into using social media to understand behavioral health disorders. Kotikalapudi, et al. (2012) analyzed web activity patterns of university students that indicated depression. Similarly, Moreno, et al. (2011) also showed that Facebook status updates showed signs of severe depressive disorder. Park et al. (2012), with reference to Twitter, found preliminary evidence for depression and social media treatment (Choudhury et al., 2013).

Internet surfing is a non-communication activity that is called spending time on random or targeted internet websites. Users for information collection, interactive plays, shopping, viewing photos and movies, use the website. Internet surfing can be addictive by nature because every time people go online, they get short term satisfaction, and it becomes highly desirable to continue going online to get such satisfaction. Excessive Internet surfing has demonstrated that depression and social anxiety can increase (Selfout, 2009). Therefore, people struggling with internet surfing as well as social networks, can be at risk for a significant decline in communication and conflict resolution capabilities due to their isolating behavior. In addition, Selfie et al. (2009) found that adolescents with low-quality friendships showed significantly higher

depression and social anxiety. This is an important concern because too much computer use can inhibit the exploration of one's own actual environment and the growth of friendships.

Ihuoma, et al. (2013) studied on Influence of Information and Communication Technology on behavior problems of Nigerian youths. They found out that significant joint difference of influence of ICT, School, sex, and age on cybercrime, aggressive behavior, truancy, and sex crime among youths. This study recommends that clinical psychologists and guidance counselors should use suitable skills and techniques for curbing the identified behavior problem. Means this study focused on the Influence of ICT On the behavior of youth, which correlates to the researcher study how ICTs affects the Interpersonal Communication Patterns of individuals.

Coget, et al. (2002) conducted a study on “The Internet, Social Networks and Loneliness” and found that internet is associated with reduced social networks among people. They observed that the internet and social networking sites are the reason for loneliness and have a negative impact on social relationships and psychological well-being. This study also found that internet and online communication platforms displacing face-to-face interaction.

Krout et al. (1998) were among the first to study the relationship between moderated Internet use, social participation, and psychological well-being aspects. Who tested the hometown area online, in which 93 families were followed in the first 12-18 months? His study was attended by a total of 256 people. It was assumed that users would improve their social support and feels less lonely, less stressed, and better mental health. The results of the study, however, revealed the contrary. Connectivity has been found between the increased use of the Internet, and less social implication increased symptoms of loneliness and depression were also found. Another outcome was that increased use of the Internet was associated with a reduction in communication between family members (Drussell, 2012).

Cyberbullying also has been addressed in the research as issues of behavioral effect. There are plenty of data concerning the negative aspects of social networking and the incidence of cyberbullying and user violence. Bullying has traditionally occurred during face-to-face interactions. However, technological advances have given new possibilities to this, ranging from text on cell phones to posting comments and videos on websites electronically. With regard to text bullying, its prevalence is

between 15-32% (Marsh et al., 2010). National level representative surveys of 10–17-year-olds found double the number of victims of online harassment in the year 2005 data compared to the year 2000 figures (Giffords, 2009).

The problem of cyberbullying whirling, unwelcome sexual advance, and harassment—should be taken very seriously due to adverse effects on victims, including feelings of distress, remorse, humiliation, and self-harm. An analysis of an anonymous post by a young person is using a phenomenological approach revealed a large incidence of cyberbullying both from real and online conversations (Mishna et al., 2009). In another study, students who were text bullied found that they were significantly more likely than those who were not bullied with text to feel unsafe at school. Whether it is because of a lack of self-esteem or social skills, teens turning to online relationships because of feelings of individual isolation may find complications in online relations. It is in these relationships that young people may be subjected to cyberbullying, unwanted sexual progress, and even cyberstalking (Marsh et al., 2010).

Festinger (1954) has argued that these SNSs are conducive to self-assessment and social comparisons among many people based on social classes, social functions, beauty, popularity, wealth accumulation, and other social functions (Wood, 1989). Lockwood and Kunda (1997), argue that upward social comparisons inspire people to replicate their behavior and attitudes. However, upward comparisons have also shown that people feel lower and have negative assessments of themselves (Morse & Gergen, 1970). This means that, in most cases, these upward comparisons negatively affect people's self-esteem (Vogel et al., 2014).

Many researchers concluded that the high use of Facebook causes depression and reduced individual prosperity (Feinstein et al., 2013). As many people do not use Facebook because of their emotions or humor, they use Facebook to overcome their solitude (Kross et al., 2013). Chou & Edge (2012) found that individuals who use Facebook frequently have a very strong belief that other users who are not well aware of themselves live healthy, happy, and prosperous lives. These assumptions concerning the lives of other people cause depression among people. Anxiety, depression, psychotic disorders, and low self-esteem are all possible outcomes of social networking sites, especially Facebook (Pantic, 2014).

Chen & lee (2013) argue that the use of Facebook is directly related to people's psychological distress, which reduces people's self-esteem. Some researchers do not agree and say, that it is only the internet that generally affects people's self-

esteem and not social networking sites in particular (Valkenburg, 2006). The authors found that increasing time spent online was due to a decline in contact with family members and a reduction in the social circle of Internet users, which could further lead to a feeling of depression and solitude. The study conducted on the high school population has found statistically significant positive correlations between depression symptoms and time spent on SNSs (Kraut et al., 1998).

Oxman et al. (1982) demonstrated in the field of sociolinguistics that language analysis of language could divide patients among groups with depression and paranoia. Computerized text analysis using the LIWC program has also revealed predictional information on neurotic trends and psychiatric disturbances

2.8 Theoretical Framework

There are several theories and models that have been discussed to understand how ICTs bring changes in interpersonal communication patterns, tools, and techniques, how ICTs replaces face-to-face communication, changing the culture of communication and affect individuals' behaviors. The theories and models are:

2.8.1 Technology Determinism Theory

The major variable of this study is Information and Communication Technologies, which have a trimidious role in communication these days. The researcher applied the concept of technology determinism theory to know the unique and advanced features for interpersonal communication provided by ICTs. Thorstein Veblen (1857-1929) developed the theory of technology determinism. Veblen beliefs that technology determines is social and cultural changes. It is the primary governing power in society. The theory of technological determinism explained how advances in technology have an impact on all aspects of society, including communications methods. According to Technology Determinism, *"technology is a way of forming and controlling the size and form of human interaction and practice."* Opportunities for new experiences and the chance always be present are relevant ICTs (internet and social networking sites) gifts. According to karuchit, (2013), there are five major commitments of technological determination:

- i) Technology's effect is universal. Everyone has caused equal levels of effects because of their backgrounds. This is due to the communication between the medium's inherent (Physical) and the human being's inherent (Physiologic) properties.

-
- ii) According to Melvin kranzberg (1917-1995), technology is a non-neutral system. "Not good nor bad; nor neutral is technology."
 - iii) New technology changes society at each level and organization, social interaction, and people; the effect of technology is inescapable.
 - iv) Technology is separate, independent, and autonomous. It has its dynamism, thus influencing culture blindly.
 - v) Technology is a reason for social changes, in the past, present, and future.

In 1960, the Canadian literary scholar Marshall McLuhan stated that It forms and controls the scale and form, association, and action of the human (Karuchit, 2013). He said that the media is an extension of a person's dream, listening, and reaching out to an individual across time and space. Electronic media will offer new perspectives and visions for everyday people and allow us always be anywhere (karuchit, 2013).

The theory of technological seeks to explain how changes in communication methods through technological developments affect society in general. This theory says that media technology forms the way people feel, act, and think within society and influence the way in which society operates when they are moving from one technological age to another. In other words, people are learning how to think and act the way they do base on the messages they receive from the current technology. This theory supports the belief that *"the medium is the message"* and that people will adapt accordingly and use the means through which society as a whole communicates. As the medium develops, so does the mode of interaction in society. The message itself is also impersonal if the medium is impersonal (Mcluhan, 1962).

2.8.2 Uses and Gratification Theory

The theory of uses and gratification is a key theory of studies on communication. It is a strategy to understand how and why individuals actively seek certain media. The current research adopts an alternative way of exploring motivation by adopting uses and gratification structure. Uses and gratifications is a theoretical direction with attention on why individuals utilize a given medium, rather than the "effects" of a basic introduction to its substance (Blumler & Katz, 1974). In other words, people use the media for specific requirements, and therefore the results of the use of the media are influenced by the rewards they are seeking. Traditional media theorists have suggested some main categories for these gratifications, including data needs, social interactions, entertainment, and personal identity (McQuail, 1983, 1987). In the field of interpersonal communication, researchers use and reward a number of

technical classifications such as instrumentality, sociality, entertainment, and fashion (Leung & Wei, 2000; Wei 2008).

For the purpose of this study, predictor variables of interest include information and communication technology use for formal and informal interaction with peers, family, teachers, office staff, seniors etc., and personal recreation.

The theory of use and gratification has been examined in order to understand the motivation and purpose of information and communication technology in interpersonal communication (Trowbridge, 1976). Based on these basic dramatic and theoretical premises, this theory stands on the point of view of the users:

- i) The users are well aware of their decisions in terms of use, desires, and importance.
- ii) For fulfilment, the media are competing with other services.
- iii) The users are aware of their needs and select the media to serve their own needs by connecting their needs to a particular medium.
- iv) The users are involved and goal-oriented in choosing how to use media in their lives.

Information, Entertainment, Personal Identity, Personal Relationship, and Social Interaction are the four basic needs of uses and gratification theory. All four gratifications are served by information and communication technology and its function. It is where users socialize, find friends, and connect from afar with loved ones. In comparison to traditional web browsing, users can now talk about their personal status and seek online feedback from their group of friends. Users often find their sense of humor by following social media pages that amuse them with funny quotes and pictures (Karuchit, 2103).

2.8.3 Displacement Theory/ Media Displacement Theory

This study is based on the displacement theory. Every new thing causes the displacement of old things. The concept of displacement also applied to this study. Follow this concept, the researcher focused on the reason for the replacement of face-to-face conversation, uses of digital Non-verbal cues, and shortcut and stylish patterns of communication textisms, which are replacing words and sentences during text communication. Leading Mass Media scholar Maxwell McCombs developed displacement theory. This theory mainly describes how, in our lives, we individuals can communicate only so long. In other words, participation in one new platform of communication removes others, and we have less time for other communication activities when new communication technology is introduced. This theory is based at

that, time is a limited resource and that communication activities are limited in time. The theory about displacement uses a little bit of a sum game that begins with a zero. When you use new technologies, it adds points, to return to level 0, you must remove other contact practices (Sienkowski, 2012).

2.8.4 Media Richness Theory

This study aims to find out the reason for ICTs uses in interpersonal communication. To find out, this researcher followed the concepts of media richness theory. Based on this theory, the researcher generalised the tools and techniques for communication. Media Richness theory was developed by Richard L. Daft and Robert H. Lengel in 1986, which improved by Sheer & Chen in 2004. The theory pointed out that role of communication and the media should be combined to boost efficiency in communication. In their work, they say there are two main factors, uncertainty, and equivocality, which affect the communication process. The difference between the quantities of information required for the task and already available information is uncertainty (Galbraith 1974). According to Daft, organizations need to get sufficient information and distribute it to the right people to minimize uncertainty. Equivocality means that inside the organization, there is always an ambiguity about the same information. Therefore, people need to understand the same information in a similar fashion for effective communication to take place. The distinction between these two is that information needs to be acquired to reduce uncertainty, but people need to share and pool their knowledge to overcome discrepancies and reach a common understanding to reduce equivocality (Daft, 1987).

According to sheer and Chen (2004), MRT in communication process has four aspects:

- i) the availability of Instant feedback
- ii) the use of multiple cues, such as physical presence, voice inflection, body gestures, and graphic symbols, and so forth
- iii) the use of natural language for conveying a broad set of concepts and ideas; and
- iv) the personal focus of the medium.

2.8.5 Symbolism interaction theory

Symbolic interactionism is a sociological theory, which implies that both languages and symbols prescribe their meaning. These meanings are developed, brocade, protected, and cultured through interactions with others. Based on this theory, non-verbal cues have been used to exchange messages, thoughts, along with objects, media, and other images. Cultural and social values are echoed through these

exchanges while also serving as a central instrument in the development of the idea of self (Redmond, 2015).

Symbolic Interaction theory is designed to make sense of the complexities of perception and the effect it has on whom we think we are, as well as transmit the significance of our constructions, assignments and exchanges through verbal and non-verbal signals. The influence of theories and its history, theoretical implementations and, practical implementation in the world is irreplaceable and has a positive effect on human interaction. Philosopher George Herbert Mead developed the theory of symbolic interactionism and was then further extended by sociologist Herbert Blumer (Redmond, 2015). Schenk and Holman (1980) argue that symbolic interaction is a complex theory since the objects in this theory have significance within themselves and people formulate their work in the direction of their own assessment and people and objects around them (Aksan et al., 2009).

According to Blumer (1969), in two respects, human forms mean first, Subjects, events, phenomena, etc. have been attributed to a mean, and secondly, the events and objects are physically attachable to human things. Blumer notices that meaning is a condition that occurs because of interaction between group members and not the intrinsic characteristic of the object (Aksan et al., 2009). As a result of the interaction between people, the meaning is formed, and meaning allows people to produce certain facts that shape the sensory environment.

Symbolic interaction according to Blumer, is based on three basic proposals:

1. Human beings grow their actions towards objects according to their meanings.
2. Such meanings are derived from the correspondence of one of them from its recipients.
3. In an interpretive phase, these definitions shift.

2.8.6 Cognitive behavioural theory (CBT)

This study based on Cognitive behavior theory, which is based on a psychopathological cognitive framework. The cognitive theory explains how people's expectations of or random thinking affect their emotional and behavioural (and sometimes physiological) reactions. Based on this theory, the researcher explored the how internet and social networking sides influence and change individuals behaviour. The experiences of individuals when they are anxious are often skewed and dysfunctional. CBT is based on the premise that all work together in how we think (cognition), how we feel (emotion), and how we behave (behavior). Our thoughts

directly decide our feelings and our actions. These cognitions distort the way we see things; Ellis suggested that it should be irrational, while Beck proposed the cognitive triad.

2.9 Hyperpersonal Communication Model

In this study, the hyperpersonal models of communication from Walther's (1996) have used to explain potential differences between Face-to-Face communication initiation and TMC relationships. Hyperpersonal communication model offers, *"a fully integrated view of CMC taking into account the sender, receiver, channel, and feedback as each contributes to hyperpersonal interaction in CMC"*(Walther, 1996, p. 28).

The model is based on Walther's analysis of previous investigations, which examined how the Internet affected communication. Walther reconceptualizes how the Internet can affect communication supports when looking at the online development of relationships. Walther described the three types of communication that could be caused by CMC in 1996. Walther explains that computer mediation alone does not *"make either impersonal or hyperpersonal communication"* (p. 33).

CMC allows users to communicate more easily so that each specific interaction is optimized. Three communication types are used online: impersonal communication, interpersonal communication and hyperpersonal communication. The lack of nonverbal signals and, at times, the reduced interactivity of email and computer conferencing systems lead to impersonal communication (Walther, 1996, p. 7). Walther also explains that impersonal communication can occur when the communication objectives of individuals are not interpersonal, when people have limited periods to communicate, and if people do not anticipate future interaction.

People can communicate through CMC interpersonally as well. Walther (1996) explains that when people have time for exchanges of information, impression, and value comparisons, CMC is interpersonal. When people interact through CMC they feel are going to continue their relationship, CMC is not personal than face-to-face (Walther, 1996, p. 33).

Finally, Walther (1996) discusses hyper-personal communication as a socially more desirable CMC than a parallel one-to-one interplay. Hyperpersonal communication takes place when persons *"experience commonality and are self-aware, [are] physically separated, and [are] communicating via a limited-cues channel that allows them to selectively self-present and edit"* (Walther, 1996, p. 33). Without

the intrusion of environmental reality, CMC enables persons to create and reciprocate representations of their partners and relationships. Hyperpersonal communication is communication that is more common when asynchronous or when CMC is the only communication that partners share (Walther, 1996).

Various studies have results that conform to the hyperpersonal model. The impression formation of face-to-face and CMC dyads was compared by Hancock and Dunham (2001). Participants rated the personality profiles of each other in particular. The *"impressions formed in the CMC environment were less detailed, but more intense than those formed face-to-face"* (Hancock & Dunham, 2001, p. 325). When there is hyperpersonal communication, the impressions of potential partners by individuals can be exaggerated rather than similar personal interactions. Individuals communicating via CMC often have a tendency to fill in the blanks when they encounter limited personal information (Fiore et al., 2008). Antheunis et al. (2009) also noted that the depth of self-revelation of people who communicated only by text CMC is greater than those who communicated by a face-to-face that supports a hyperpersonal model. The hyperpersonal model shows CMC can result in an intimate exchange of information. Private information is shared earlier than in face-to-face situations (Antheunis et al. 2009).

2.10 Sociocultural Orthography Model

This study followed the concept of the orthography model. Through this concept, the researcher tried to find out the significant challenge of learning new spelling and language in mediated forms. Sebba (2007) has described and developed a theoretical framework for research on text orthography in sociocultural models of orthography. The significance of the model is to show how decisions made in orthography are both guiding and meaningful for current purposes. Other orthography discussions provide descriptive information for pedagogical or corrective purposes that focuses on sound-spelling, spelling problems, or historical reports on standardization and which orthographic texts reveal earlier statements (Leith, 1997). However, the sociocultural model explores orthographic as an integral part of a particular society, which cannot research literacy practices isolated and embedded in broader social and cultural practices.

Thus, orthography can be seen as a social practice, like literacy. Sebba (2007) defines orthography as a widespread and recurring activity involving community members in making meaningful choices, albeit from a limited set of possibilities

(Sebba, 2007). While there is limited scope for variation and variation in the form of the spelling variants, as orthography tends to be highly standardized. This possibility of variation makes the social practice of spelling possible provided that the choice of orthography necessarily has social significance (Sebba, 2007). At the same time, variation from conventional norms must respect language-specific spelling principles to continue to be recognizable and, therefore effective for the community.

2.11 Technology Acceptance Model (TAM)

In this study, to find out the technology framework of users' adoption and use of new and innovative technologies for interpersonal communication, the researcher has followed the concepts of the Technology Acceptance Model. The technology acceptance model, as presented by Chang and Wang (2008), indicates that computer-mediated-communication attitudes are related to user expectations and decision-making. In other words, how useful one perceives technology-mediated communication as being will either encourage or discourage somebody from using it again for similar purposes in the future. One example would be that if someone were effectively using TMC in sustaining relationships, they would be optimistic about using TMC for the same reason in the future.

Chang and Wang (2008) also examine the consequences of attitudes and perceptions for the use of TMC using reasoned action theory. They propose that CMC predispositions may affect intentions and usage experience. According to the reasoned action theory:

“A user's beliefs determine his or her attitudes towards using a system.... it suggests that social behavior is motivated by an individual's attitude towards carrying out that behavior, which is a function of his or her beliefs about the outcome of performing that behavior and the evaluation of each of those outcomes” (Chang & Wang, 2008).

2.12 Chapter Summary

This chapter contains reviews of various available literature related to the study. This review of the literature has examined literature related to the use and effects of information and communication technologies on communication, Face-to-face communication, and behaviors of individuals. It also explores the literature related to the Non-verbal cues and textisms as interpersonal communication. This chapter covered the literature reviews focusing on emoticons and emojis as technology-

mediated forms of communication. This chapter covered the literature based on textisms as a shortcut form of communication. In this last of this chapter, the researcher has explored the related theories and models of the research study. Literature found that users could adapt to the channel to a degree of competence that enables them to communicate like face-to-face communication with the increased use of and familiarity with technology-mediated communication.

CHAPTER THREE

Interpersonal Communication: An Overview

3.1 Introduction

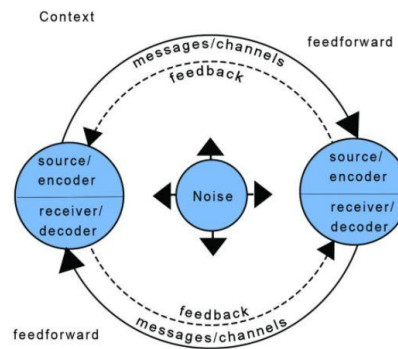
This chapter is intended to illustrate about the perspective of Interpersonal communication. This chapter provides a complete overview of interpersonal communication. The various forms, elements and principal of interpersonal communication have been discussed in this chapter. This chapter also focused on the models, functional aspects, and cultural aspects of interpersonal communication. The researcher also illustrates and discusses the conflict and emotional aspects during interpersonal communication.

Interpersonal communication is the person-to-person interaction and it is an interaction between two people. Through this, people can share different life experiences, different levels of communication skills and various opinions about communication. Tarone (1981) said that the control of messages for generating meaning is contact between two persons. Tarone also highlights it as the process of meaning sharing between interacting persons as an instrument for the fulfillment of interpersonal needs. These include intimacy (wanting to convey and to receive love), participation (wanting to be with others) and power (willingness to impact the events and the people around us) (Renney, 2010). For example, our discussion with a stranger on the bus does not come about because of a specific purpose but may satisfy our implied requirement to be included. Effective interpersonal communication is hereby characterized as a deliberate and intense interaction with others who facilitate a common meaning between individuals and satisfy individual objectives and fundamental interpersonal needs.

Interpersonal communication is a fundamental skill in life that helps us to maneuver through our various circumstances and interactions in our lives. Despite differences in ethnicity, culture and language, verbal and non-verbal interpersonal communications are a powerful connecting force that brings together people and facilitates a common experience. The core of our relationship in the world is interpersonal contact. However, discussions and interpersonal interactions are reminiscent of us and can lead us to ask what the mechanism or experience is that separates these interactions from other conversations. One view is that the memorable experiences consist of two people who specifically communicate their own purpose and experience, generating a sense that the other understands them (Gibb, 1961). Many

different authors describe interpersonal communication in many ways. It poses an essential challenge in defining and reinforcing a common concept in a broad range of scholarly literature, such as counselling, education, industry, leadership, law and conflict resolution. The counselling field typically describes interpersonal contact as an interaction that happens when two people meet at the same time and mutually influence one another (Beebe, 2000). ABA Law practice magazine refers to interpersonal contact as two-way communication involving a productive exchange of information between two or more parties (Engel & Wysocka, 2006). Interpersonal communication has developed a lot of interest in the field of leadership studies. In leadership studies, interpersonal communication includes interpersonal skills such as perception, motivation, assurance, transparency, conflict, trust, approval or disagreement, empathy and self-revelation (Renney, 2010). In reality, Argyris's (1976)'s early work inspired communication researchers who interpret interpersonal interactions primarily as a composite of interpersonal competences. Argyris (1956) notes that conveying information and awareness about the specific context is crucial in determining interpersonal communication, besides interpersonal skills. The field of conflict resolution claims that interpersonal contact produces and addresses conflicts and controversies. Interpersonal conflict occurs when contact between one person trying to maximize his or her goals prevents, blocks or affects another person trying to maximize personal goals (Deutsch, 1973). In addition to the various meanings, the purpose behind interpersonal communication varies between disciplines, occupations and organizations. In general, interpersonal communication mainly concerns the transfer of knowledge from one person to another (Renney, 2010). In particular, interpersonal contact is the exchange of information between two or three individuals in close proximity who use various communication networks to provide immediate feedback (Gouran & Wiethoff, 1994).

Interpersonal contact is relational; it occurs in a connection, and the way we connect depends on how we have a relationship with the other person. The contact style can vary from relatively impersonal to highly personal. The individuals involved in the relationship are interdependent, meaning that one person's behavior has an influence on the other person. The following figure shows the process of interpersonal communication:



Source: <https://www.businessstopia.net>

Figure 3.1: Process of Interpersonal Communication

3.2 Forms of Interpersonal communication

Communication scholars typically describe interpersonal communication in various forms, which generally representing participants dependent on one another. It may involve one person in one conversation or communication with several people in a community. It allows one to understand how, when, and how people comply with a social reality in various ways. Although contact between individuals can be described as its own study field, it can take place in other contexts as well as in organizations and groups. The mechanism we use to express our ideas, emotions, and feelings to another person is interpersonal communication. Our awareness, practice, input, and reflection strengthen the interpersonal skills of our communication. Interpersonal contact between two or more persons includes sending and receiving messages. DeFleur and Dennis (2002) have conceived interpersonal communication as a process of using language and nonverbal indicators to send and receive messages between persons who wish to produce unique meanings. Rothwell (2004) says that interpersonal contact is dyadic contact; he says it is a transaction between two individuals (Akor & Udensi, 2013).

Interpersonal interactions are the way people share knowledge, feelings and interact verbally and non-verbally. This description highlights the essential fact that interpersonal communication is apprehensive about the 'what' is said, i.e., the language used, and how, for example, it is pronounced with nonverbal signals, such as voice and facial tones. Interpersonal contact can be regarded as the process of interaction with others and reciprocal control, typically to maintain relationships. In other words, interpersonal contact involves sending messages and receiving messages between two or more people. All communication aspects like listening, persuasion, confirmation, nonverbal communication etc. can be protected by this. A significant definition of interpersonal communication explores communicative behavior if few individuals are

involved in a communication operation, as opposed to areas such as group interaction (Akor & Udensi, 2013).

Individuals often interact at various interpersonal levels depending on with whom they connect. For instance, if an individual interacts with a family member, the contact is more than likely to vary from the form of communication used in a communicative event with a friend or another important person (Akor & Udensi, 2013). Overall, both direct and indirect communication media, for example, face-to-face and computer-mediated communications, can contribute to interpersonal communication. Effective interpersonal communication implies that both senders of the message and recipients of the message understand and appreciate the messages sent to them in a degree of understanding. Real-time, face-to-face or voice-to-voice contact is interpersonal communication that facilitates immediate feedback (Akor & Udensi, 2013).

In the daily activities of any manager, but particularly in organizations that use teams, interpersonal communication plays a large role. Bateman and Zeithaml (1990) have identified some of the characteristics of supervisors whose employees earn high marks. Second, these managers appear to interact more than most managers, explain the reasons for decisions and advise about the changes in advance. Secondly, they prefer to use an equalitarian approach rather than regulate it when dealing with subordinates and press for enforcement instead of requesting them. Third, when talking, they prefer to take the wishes and opinions of others into account. Finally, the most successful managers are good listeners, take proper notes of employee problems and take the time to address questions and grievances (Akor & Udensi, 2013).

Communication takes place when two or more persons living in the same place are aware of each other's presence. It is likely that contact can be subtle or accidental and not necessarily verbal. While there may be no contact planned, non-verbal methods like posture and facial expression convey signals from person to person. Interpersonal contact is largely dyadic but is usually restricted to a specific community like the family. In a general sense, there are four forms of interpersonal communication:

3.2.1 Oral Communication

Oral communication is something that includes talking, from your words to your voice as you say them. In the workplace, this form of interpersonal contact possibly gets the most attention. Oral communication is important for your work and can make you even more enjoyable. In one study, researchers Juliana Schroeder and

Nicholas Epley found employers and staff members more likely to recruit a work applicant by listening to the candidate's audio recording than by reading or viewing it (Rigby). This means that the voice alone has the ability to convince people (Rigby, 2013). Following are the example of Oral Communication:

- Speaking openly
- Calls by Phone
- Audio messages
- Podcasts
- Interviews on the radio
- The Meetings

3.2.2 Written Communication

Written communication involves words and symbols typed or marked with ink, pencil, or other instruments of writing. Written communication when you work remotely is extremely important, as it makes up the vast majority of your daily communication, whether through slack messages, Google Docs or e-mails (Rigby, 2013). Following are the example of written communication:

- E-mail
- Slack messages
- Text messages
- Reports
- Suggestions
- Descriptions of Work
- Appraisals of results
- Grammar
- PowerPoints

3.2.3 Non-verbal Communication

Any communication that does not use words requires nonverbal communication: hand gestures, eye contact, facial expressions, body language, clothes and even the items on your desk relay a message to your audience. Non-verbal contact makes up 55 percent of our interpersonal interactions. Interpersonal communication can be asynchronous or synchronous when it comes to the non-verbal conversation online (Rigby, 2013). Following are the example of written communication:

- Video
- Handshake

-
- Eye contact
 - Facial expressions
 - Clothing
 - Pitch of speech

3.3 Elements of Interpersonal Communication

The process of interpersonal communication is the sharing of information, feelings and meaning through verbal and nonverbal messages. Sometimes it involves face-to-face information exchange in the form of speech, facial expressions, body language and gestures. Interpersonal communication abilities are measured by the efficiency of transmitting messages to others. If two or more people are in the same place and know each other, then contact takes place, no matter how subtle or accidental. An observer can use stance, face expression and dress to create an image of the position, emotional state, personality, or intentions of the other without speaking. While there can be no contact, people receive messages through nonverbal means. The following are the central elements of interpersonal communication.

3.3.1 Nonverbal Factors

Nonverbal interpersonal communication components include the influence of body language on the perception of verbal signals. One important aspect of nonverbal interpersonal communication is eye contact, where the speaker holds the audience's gaze. The position of the body often affects receiving the message, which indicates a lack of interest or a slouching expression. The positioning of the head, hands, legs and feet adds more elements, while certain movements like fidgeting or defending the body with crossed arms indicate that the individual is not open to experience (Lauren, 2017).

3.3.2 Paraverbal Factors

Factors such as voice pitch, tone, and rate of speech contain paraverbal components. These work with the interpersonal communication verbal elements to highlight those concepts. Moreover, the way a speaker emphasizes certain languages or words may influence the meaning of the message. Furthermore, the manner in which a speaker emphasizes certain syllables or words may affect the meaning of the message being transmitted. There is also an effect on volume. Words spoken with greater volume are more relevant than those spoken with average or lower volume (Lauren, 2017).

3.3.3 Verbal Factors

In interpersonal communication, language style, grammar and word usage all play essential verbal roles. These elements help influence the presented message, which has a significant effect on the message's content and development. The organization and use of words can improve the consistency and efficacy of the message through formal and informal signals in the language (Lauren, 2017).

3.3.4. Combining factors

While each of the interpersonal communication factors works separately in order to enhance the efficiency of messages between two or more individuals, these elements must interact to provide consistency and understanding. The development of and delivering the message in a straightforward and concise way helps avoid misunderstanding and uncertainty. The speaker also encourages an effective level of contact by ensuring that the message is clearly conveyed for the first time. Where the message would not have to be interpreted or replicated further to ensure proper comprehension (Lauren, 2017).

Interpersonal communication usually includes the following key elements:

1. The communicators

The sender and receiver are the communicators. The sender is the person sending the message and the recipient is the person receiving the message. At least two people should be interested in interpersonal contact, one to deliver the message and the other to receive the message. Communications are in fact usually dynamic, two-way systems, where people send and receive messages simultaneously to and from each other. Communication is, in other words, an interactive process. When anyone talks, the other listens, but they give feedback in smiles, head nods etc. while listening. When anyone talks, the other listens, but they give feedback in smiles, head nods etc. while listening (Bajracharya, 2018).

Nevertheless, the issue is that communication is viewed as a one-way mechanism in which one person sends and the other receives the message. For example, when someone talks and someone else listens.

2. The Message

The message implies not only speeches used or knowledge communicated but also exchanges of non-verbal messages such as facial expressions, voice tones, gestures, and body language. Non-verbal means are capable of carrying additional knowledge, such as the mood and desires of the individual. Additional information

about the spoken message may be communicated through non-verbal behaviour. More regarding the subjective attitudes underlying the quality of speech can be seen in particular (Bajracharya, 2018).

3. Context

How the message is interpreted often depends on the context in which the message is received. The contact process is affected by the context in which it happens. The emotional environment and people's aspirations, the scene and social, political and cultural circumstances are a backdrop (Bajracharya, 2018).

4. Channel

The channel is the medium by which contact occurs. The message is received and sent through the channel. It is often called the medium used to relay the message. The channels of speech and vision contact from side to side, while the waves of contact by telephone are the cable or electromagnetic.

5. Feedback

The receiver reaction is the feedback, which contains the message that he returns. Feedback helps the sender to consider how exactly the message is received and how it is interpreted. Feedback provides responses to both the deliberate and the involuntary posts. The input may also be in the form of a gesture (Bajracharya, 2018).

Feedback varies from clear verbal comments, e.g. "Say again, I don't understand," to subtle facial gestures or body adjustments, which might show the sender that the recipient is dissatisfied with the message. Feedback helps the transmitter to modify, adapt or repeat the message in order to enhance communication (Bajracharya, 2018).

6. Noise

Noise refers to the message as it is sent to some kind of distortion caused. The noise creates variations in the reception of that which is sent. The background sound of a plane is a kind of noise; the other kind of noise includes the use of complicated jargon, incorrect body language, carelessness, lack of interest, history, language differences etc (Bajracharya, 2018).

In communication theory, noise has a special significance. This applies to something that distorts the message because it varies from what the speaker wants to receive. While physical noise may interrupt communication. In the sense of interpersonal communication, the use of complex jargon, incorrect body language, inattention, disinterest, and cultural differences can be called 'noise'. In other terms,

noise can be called any distortion or inconsistency that occurs during a communications attempt (Bajracharya, 2018).

3.4 Principal of Interpersonal communication

Donnel King (2000) describes the four basic concepts that underlie and cannot be ignored the functioning of interpersonal contact in real life. The efficacy of our communications is driven by these principles; they may be easy to understand but may take a lifetime to learn. Some fundamental concepts are applicable to all interpersonal communications. The following are described:

3.4.1 Communication is Irreversible

Communication between people is one way. If you have something to say, then those words will never go unspoken. Words have a great deal of strength. They can damage people and cause them to be severely depressed and to succeed. What kind of words you have chosen to talk is up to you. Through your words, you can spread positivity anywhere and can also turn a positive world through your words into a negative one. Before you talk, it is always advisable to think. This is the perfect way to enhance your interpersonal relations (shah, 2008).

3.4.2 Communication is Inevitable

Communicating can never be stopped. The scholars here use this term a lot to describe this idea. It shows that we cannot stop talking, and the explanation is that we talk all the time already. The method in which the sender sends a message to the receiver is simple. The consistency of the correspondence is accessed by the fact that the recipient interpreted the message correctly. In order to improve your communication skills, you should always clarify things and allow the recipient to understand it correctly. Since communication can never be prevented, it is, therefore, best to develop your skills and be flawless (shah, 2008).

3.4.3 Communication is Contextual

In other words, no communication can be done in isolation. Communication occurs through five basic contexts. Psychological meaning, who are you and what you put into contact? The psychological context is your wants, interests, beliefs, personalities, etc. Relational meaning concerns the responses to the "mix" of the other person. The circumstance is meaning deals with the "here" through which you interact psycho-socially. Interaction in a classroom will be very different from interaction in a pub (shah, 2008).

Environmental meaning discusses the physical "where" you interact. Examples of factors in the environmental context are furniture, location, noise level, temperature, season, time of day. In addition, the cultural context incorporates all the attitudes and laws that have an impact on the relationship. If you come from a community in which long direct eye contact is considered cruel, you avoid eye contact out of courtesy.

3.4.4 Interpersonal Communication is Complicated

No mode of communication is straightforward. In addition, basic requests are highly complicated due to the number of variables involved. Theorists say that there really are at least six "people" involved whenever we interact:

- who you think you are;
- who you think the other person is;
- who you think the other person thinks you are;
- who the other person thinks /she is;
- who the other person thinks you are; and
- who the other person thinks you think s/he is.

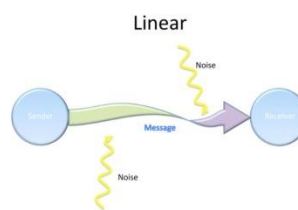
There are many people in this world with different personalities. Therefore, the way they speak, as well as the way they understand, are also very different. This is the explanation for difficult communication. Owing to the many people you communicate, this is difficult. The thinking and way of describing another person cannot be controlled; the contact is what you can monitor. So develop it to communicate your thoughts in an accurate way (shah, 2008).

3.5 Models of Interpersonal Communication

A model is a simpler representation of complex interconnections between elements of communications processes that help people to understand a process that is often complex. The "model" is intended to provide an outline of a concept in order to promote its comprehension. Linear, Interactional and Transactional are three of the most popular models for communication. Every model sheds light on the creation of communication and stresses different parts of the communication process, as explained by West & Turner (2007). The models include images of dynamic relationships or visual representations. They are important because they simplify the basic communications framework and help us not only verbally but also visually understand the structure. It defines the various communication elements and acts as a kind of map to demonstrate the interrelationship of different areas of the communication process. Interpersonal communication Models are the following:

3.5.1 Linear Model of Interpersonal Communication

This model was originally developed in 1948 by Shannon & Weaver and defines communication as a linear process. This model explains how a transmitter or speaker conveys a message to a recipient or listener. In fact, the transmitter is the source of the message. A message in a communication interaction can consist of sounds, phrases, or behaviours. The message itself shall be transmitted to the recipient who is the object or recipient of the message through a link, the communication path or route. Barriers in the communication process may be presented noise. Noise refers to any channel interference or message distortion. This is a very basic model in which a message is simply sent from sender to recipient (Corey, A. M, 2009).



Source: <https://ecampusontario.pressbooks.pub>

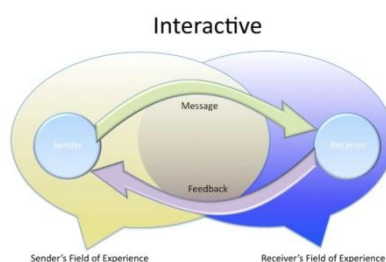
Figure 3.2: Linear Model of Interpersonal Communication

While during the mid-20th century, the linear model was highly popular and this model was too simplistic. Its shortcomings are easy to see if you pause to consider the views or assumptions made in this model on communication. First, this model assumes that contact only goes one way. An individual can be a sender or a receiver here, but not both of them. This is a concern because contact is more complex in reality than the linear model implies. Communication in action entails give-and-take between senders and receivers in which listeners are not merely passive receptacles for the message of a sender. This model is also limited, as only one channel for a single message is given. Lastly, it ensures that the messages themselves are consistent with a consistent start and a distinct end. Nevertheless, contact is rarely as clean and secure as a linear model (Corey, A. M, 2009).

3.5.2 Interactional Models of Interpersonal communication

In other words, the Interactive Model takes the Linear Model and doubles it with a rapid reversal of the message. Interactional models adopt two channels in which contact and input flow between sender and recipient in the transition to a more complex view of communication. Feedback is just an answer to a sender from a recipient. It may be oral or nonverbal feedback. Particularly, feedback indicates a sense of understanding. It helps senders to know if their message has been received and

understood. Interaction models see communication as an ongoing process by concentrating on flow and feedback (Corey, A. M, 2009).



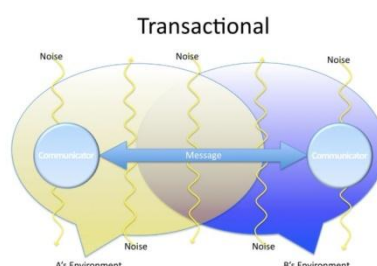
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Figure 3.3: Interactional Models of Interpersonal communication

The last characteristic of this model is the area of knowledge. The area of expertise refers to how climate, experience, culture and even heritage can affect how a transmitter builds a message. Be mindful that each person brings to an interaction a specific field of experience. Similarly, every interaction of communication is special. Although the interaction model is more complex than the linear model, certain limitations are still present. This model suggests that people cannot do it simultaneously, though they can be both senders and receivers. Roles are not so straightforward and actually much more complex in living contact (Corey, A. M, 2009).

3.5.3 Transactional Models of Interpersonal Communication

The most complex communication models are transactional. One essential aspect of this model is that people are referred to as senders and recipients and people are referred to as communicators. It means that contact is done by sending and receiving messages. The contact is treated as a transaction by this model. Communication is a mutual practice through which communicators co-create the interaction mechanism, result and effectiveness. In comparison to the linear model in which meaning is sent from one person to another, individuals produce mutual meaning in a more complex process in the transactional model, unlike the interactional model in which understanding is achieved through feedback (Corey, A. M, 2009).



Source: <https://ecampusontario.pressbooks.pub>

Figure 3.4: Transactional Models of Interpersonal Communication

More focus is also placed on the area of experience by this model. Although each communicator possesses a specific experience area, they must also live in a common area. Although each communicator possesses a specific experience area, they must also live in a common area. In other words, if people are to interact at all, communication agents should share at least some degree of overlap in culture, language or environment. This model also recognizes that messages affect the answers or subsequent messages generated in the interaction between the communications. This indicates that messages are not isolated but rather interrelated. The theory of interrelation states that messages are linked to each other and are dependent on each other (Corey, A. M, 2009).

3.6 Functional Aspects of Interpersonal Communication

Relationships have different needs, which are fulfilled by our different communication ways. Instrumental objectives, relationship preservation, and self-presentation objectives have been analyzed to understand how relationships meet strategic functions. What motivates to communicate someone? We also participate in contact to accomplish key objectives, such as enforcement, gathering information or requesting assistance. In short, instrumental talk allows us in our relationships to "make things done." Our main targets may be long-term or day-to-day (Schmitz, 2012). Examples of contact for instrumental objectives include the following:

- someone are asking their buddy for support this weekend
- Someone is asking his or her colleague to remind that how he or she can balance cash register before his or her transfer ends.
- After losing his job, you comfort your colleague.

We aim to build a productive relationship as we collaborate to achieve relational objectives. Engaging in contact with preserving relationships is like taking car to the repair shop. We should participate in routine maintenance in order to have a good relationship, just like having a long-lasting car. For example, someone wanted to eat pizza and watch a movie, but their friend suggests eating at a restaurant and then going to the theatre. Such routine relational responsibilities include celebrating special events or recognizing milestones, sharing time together, and frequently checking in via telephone, e-mail, text, social media, or face-to-face contact (Schmitz, 2012). Examples of communication for relational purposes are:

- someone arrange an office party for a colleague who has only just become an American citizen

-
- have breakfast with mother when you are at home
 - On your long-distance friend's Facebook page, you post messages saying you miss him.

We also seek objectives of self-expression by modifying our communication to be viewed in particular. We want to show various faces in different ways, just as many businesses, actors, and politicians build a public image. Erving Goffman, a well-known author, compares self-expression to performance and suggests that we play different roles in different situations. Indeed, skilled communicators can handle how others interpret them effectively by adjusting them to circumstances and contexts. A parent may be a star head of the household, a helping shoulder to sob on, or a trendy and culturally conscious friend of a child. Initially, a newly hired employee will play the role of a serious and accommodating co-worker. Often individuals participate in interaction that does not generally portray them in a constructive way (Schmitz, 2012). Besides of this, here are some examples of how to communicate to reach self-presentation goal:

- When your boss complains about the difficulties of formatting your company newsletter, you can tell her about your experience with Microsoft Word and editing and offer to review the newsletter once she has finished the formatting.
- You and your new college colleagues are standing in the box-filled dorm room. You let him pick the side of the room he would like and then invite him to have lunch with you.
- In response to a teacher's question, you say: "I don't know," even though you have an idea about the response

As if it is not impossible to accomplish instrumental, relational and self-representing targets when we look at them separately, we have to understand that the three forms of goals all work together. In some cases, we will prioritize instrumental objectives over partnership or self-presentation objectives.

The functional viewpoint of interpersonal communication suggests that we collaborate in our relationships to fulfill those objectives. By interacting with instrumental purposes, we get things done in our relationships. We establish successful relationships by relationship priorities. In order to be viewed in unique ways, we also strategically portray ourselves. They become small worlds that we experience with our relationship partners, complete with their own relationship cultures, as our goals are met and our relationships build (Schmitz, 2012).

3.7 Cultural Aspects of Interpersonal communication

In addition to practical facets of interpersonal communication, partnerships also relate to relationship cultures. Just as large numbers of people construct cultures through common symbols, beliefs and practices, people often establish cultures at a smaller level in the sense of relationships. Cultures of relationships are the environments generated by interpersonal contact that are particular to relationship partners but based on broader cultural and social norms. We also enter into new relationships based on the trends we have formed in previous relationships and learned about our wider society and community (Burleson, et al., 2000).

Other communicative behaviour that establishes our relationship cultures includes relational history, personal languages, habits and behaviours, as well as rules and norms. Storytelling is an integral part of how we build community in broader ways and how we build a plot for our relationships that is unifying and meaningful. Indeed, an anthropologist invented the word “homo narrans”, which defined the peculiar ability of modern people to tell stories. We also rely on relationship stories to establish a sense of stability in the face of change, testing the compatibility of possible new relationships, or building or maintaining unity in a relationship (Fisher, 1985).

Early in establishing interpersonal communication, one of the roles of this kind of storytelling is a test to see whether the people you encounter have similar stories or can connect to your past cultures of relationships. Simply put, you test the compatibility of your schemes with the new people you meet. While storytelling will continue to play a role with these new people in your social growth, you will be shocked at how quickly you start sharing stories about things that have happened since you met with your new friends. Relationship telling helps to create solidarity or a sense of belonging and proximity. This kind of narration may be of particular interest to relationships that do not fall into the dominant culture. For instance, research into a gay male friendship circle revealed that gay men often repeat some dramatic stories to build a sense of belonging and to draw new people into the community (Richard & Jones, 2007).

In our relationships, we even establish personal idioms (Bell & Healey, 1992). Much as languages are unique to individual cultures and languages, personal idioms are unique to some interactions and build a sense of belonging because the relationship partners have a common inner meaning. Researchers have defined the widespread usage of personal idioms for the following categories: events, other marks, demands and sexual references (Bell & Healey 1992). Jersey Shore’s latest cultural explosion on

MTV has brought us countless examples of personal languages created by our friends. GTL is the idiom of the show's operation, which means "gym, tan, laundry." In relationships, idioms help build cohesiveness or unity since they are mutual signals between cultural insiders. As sense is only communicated within the relationship, they also convey the uniqueness of the relationship and establish boundaries (Schmitz, 2012).

Through their normal growth in repetitive or regular contact, routines and behaviors help to shape relational cultures. Although 'routine' in some circumstances can be tedious, relationship routines are communicative activities that establish a sense of predictability in a trusting relationship. Some routines for communication may evolve around opportunities or discussion topics. Relationship rituals have more symbolic importance than relationship habits and can differ or be strongly individualized and original in generally known events such as birthdays, anniversaries, Passover, Christmas, or Thanksgiving (Bruess & Pearson, 1997).

Whether telephone calls, consuming certain foods or excavating for belly button fuzz are all habits and practices, they play an important role in building-related cultures. However, habits and practices may be negative, as with storytelling. For instance, verbal and non-verbal patterns to advise or diminish your relationship partner have no healthy influence on a relationship culture. The rules and principles of relationships assist with the everyday operation of the partnership. They lead to creating a structure and restricting contact and interaction with wider social networks (Burleson et al., 2000).

The rules and standards of relationships contribute to the daily function of a relationship. They contribute to structure and provide limits for communicating and interacting with wider social networks. Relationship principles on what can and should not be done in such cases are clearly communicated guidelines. A couple may create a rule to always chat until their children spend the night elsewhere. Relationship standards are similar to habits and rituals because they naturally evolve within a relationship and are usually compatible or adapted to what is anticipated and appropriated in a broader community or society (Burleson et al., 2000).

Norms also direct perceptions of what topics are acceptable across different relationships with regard to the subject of discussion. You chat about your personal finances to your boss. Do you talk about your medical background to your classmates? There are typically no laws that state that you cannot speak with someone you want

about these subjects, but similar norms usually lead people to respond 'no' to these questions. Violating relationship expectations and rules can adversely affect a relationship, but violations of rules can typically lead to more direct disputes, while violations of norms can lead to uncomfortable social interactions. Developing your communication skills will allow you to measure your communication with respect to the various laws and expectations you face (Schmitz, 2012).

3.7.1 Interpersonal Communication and Conflicts

Interpersonal conflicts emerge in relationships in which inconsistent interests, scarce resources or opposite views are actual or perceived. Along a spectrum ranging from a virtually imperceptible cold shoulder to a very clear blowout, an interpersonal dispute may be conveyed verbally or non-verbally. However, interpersonal conflict is distinct from interpersonal violence, which entails abuse outside contact. Conflict can take a negative emotional toll and is an unavoidable part of close relationships. It takes effort to ignore others or to be passive, and valid negative feelings are the frustration or remorse we can feel after blowing up at someone. Conflict is not necessarily negative or unproductive, however. Indeed, several studies have shown that in a partnership, the amount of conflict is not as important as how the conflict is treated (Markman, 1993). Furthermore, if a conflict is properly handled, it may lead to healthier and more fruitful relationships (Hendrick, 2000).

In the real world, developing your competence to deal with conflict may have beneficial consequences. Because our personal and professional lives are subject to disagreements, the ability to handle disputes and to negotiate results will enable us all to be more successful. The potential for disagreement is there, whether you and your wife are trying to decide on which flat-screen tv brand to purchase or discuss the forthcoming political election with your mother. The ability to participate in conflict management, also called conflict resolution, is a required and respected skill in professional settings. However, while they are supposed to do this in their work, many practitioners do not obtain formation in conflict management (Gates, 2006).

3.7.2 Interpersonal Communication and Emotions

Emotional responses to stimuli are physiological, behavioural and/or communication responses, which are processed and interpreted as emotional (Planalp, 2006). This description encompasses many significant aspects of feelings. First, feelings are also encountered internally because of physiological changes such as elevated heart rate, tense intestines or a warm frost. These physiological responses

cannot be observable by others and are thus intrapersonal unless we show some change in behavior that clues others into our internal state, or we verbally or non-verbally express our internal state. Often our behavior is voluntary— we do not know anyone who might mean that we are upset or unconsciously loyal or avoid eye contact while talking, as we are nervous. When we express our feelings, we attract attention to ourselves and warn others of their reaction. For instance, if anyone worries about sadness-related behavior, we will probably know that we need to help him or her (Planalp, 2006).

Primary emotions are intrinsic emotions that are perceived and appear rapidly for brief periods, usually as a response to an external stimulus, and are perceived through cultures in a similar way. The key emotions are happiness, distress, rage, fear, surprise and disgust. Secondary emotions are not as intrinsic as primary and do not have a corresponding expression of the face, which makes them universally identifiable. Secondary emotions are processed in a separate part of the brain, which needs a higher order of thought. Those emotions grow over time, take more time to disappear and are interpersonal, so they are encountered most often in relation to actual or imagined others. You may be afraid of the dark, but feel ashamed of a gross remark given to your mother, or humiliated to make a bad presentation before your audience. Because these emotions need more processing, they are more readily affected and controlled, so that we can be more capable of interacting by being more mindful of how we feel and communicate secondary emotions (Evans, 2002).

Although the meaning and expressions of secondary emotions are more culturally complex, they are nevertheless universal in that they are shared by all cultures. It is difficult to imagine how emotionally our lives will be, and in reality, many scientists think that we would not be here without them. Without emotions, it is hard to imagine what our life would be like, and many scientists actually believe that we cannot live without emotions. Without emotions, it is hard to imagine what our life would be like, and many scientists actually believe that we cannot live without emotions (Evans, 2002).

The grouping of people together and the formation of interpersonal relationships was a crucial element for the survival of our species and its success. For instance, unlike other animals, most of us have the capacity to handle our frustration and empathy. Emotional control can help resolve conflicts, and empathy helps us to share another's emotional state, which enhances interpersonal relationships. These skills

were important because early human society became more and more complicated and people needed to interact with more people (Planalp, 2006).

3.8 Behaviour-orientation of interpersonal communication

Interpersonal Communication Behaviour-oriented has based on two theories. Firstly information theory and secondly interpersonal theory. Informational theory is known as the mathematical orientation for transmission. It also depends on behavior. Interpersonal interactions concentrate primarily on the exchange of information from person to person. The purpose of interpersonal communication is to affect behavioural change. In this way, psychological processes such as perception, understanding, motivation and language are involved in the transmission of knowledge (Rayudu, 2010).

The interpersonal method of communication involves listening and non-verbal communication. For efficient communication, both the sender and the recipient should be present, facilitating interpersonal communication. Besides, in the interpersonal dimensions of communication, faith and trust play a significant role. Glen Mellinger's study shows that individuals who do not trust each other do not communicate effectively with each other. For superior-subordinate relations in an organisation, it is of great significance. If the subordinates do not trust the supervisor or manager, there will always be ineffective contact. Fred Luthans says that individuals only perceive what they intend to perceive the presumed other cannot be perceived at all. Given exposure to these interpersonal factors and doing something above them, the difference between successful and ineffective communication can be apparent (Rayudu, 2010).

3.9 Chapter Summary

This chapter has been outlined the full details of interpersonal communication. In this chapter, the researcher has discussed the forms, elements, and principal of interpersonal communication. This chapter focused on all basic models of interpersonal communication. In addition, this chapter described the functional and cultural aspects of interpersonal communication. The researcher also discussed in this chapter conflicts and emotional aspects during interpersonal communication.

CHAPTER FOUR

ICTs: Interpersonal Communication, Face-to-Face Communication and Individuals Behaviour

4.1 Introduction

In this chapter, the researcher has explored different types of tools and techniques of TMC that play an important role in interpersonal communication process. Technology has become an essential element of a person's life. In their personal or professional lives, the majority of people use Information and Communication Technologies (ICTs) in different forms. People have being a long association with technology. According to Miller & Evgenieva (2015), technology caters to the range of human needs, which is divided into three broad groups - Information, Functionality, and Communication Facility (Evgenieva, 2015). If technology is used for the provision of Information, people can access materials from the interest quickly. Secondly, it (technique) is used to facilitate the work. Lastly, technology can also be used to promote and facilitate communication between people and groups. The current research study focuses on these three functions of technology, especially the role of technology as a communication facility and its impact on the behavior of individuals.

This chapter focuses on how TMC affects face-to-face communication and the culture of communication. In this, the researcher has also explored how TMC has affected and changed the behavior of individuals. This is based on the research objectives one, two, and five. During the last decade, technology has progressed in all areas of the world's population. The 20th-century youth used face-to-face Communication and telephone for interpersonal Communication. However, with the advent of social networks, their traditional communication system has also changed a lot. Now, they have resorted to the Internet and social network sites for communication (Drussell, 2012). Increasing Internet access, software availability, as well as cell phone advances, have replaced telecommunications with social networks and online communications (Hinduja & Patchin, 2008).

In this chapter, the researcher has explored ways and patterns of interpersonal communication provided by the ICTs. This chapter has also investigated the effects of ICTs on analog (face-to-face) communication, individual's behaviors, society, and culture of communication.

4.2 Role of ICTs in Interpersonal Communication

Information and Communication Technologies (ICTs) have made a Hyper-Digital¹ Communication world for Interpersonal Communication. Online communication patterns are dominating our formal and informal conversations. Not only this, the development of technologies now provides the facility of Hyperpersonal Communication² to their uses. New Information and Communication Technologies (ICTs) are changing the way of our Interpersonal Communication. Interpersonal Communication means ICTs based Communication, where the Internet, social networking sites, mobile phones, and computers play an essential role in the communication process.

Social networking is an ongoing trend that includes contact on the Web with Internet users and interaction with others through mobile phones. Facebook (social media) figures show that there were 526 million active daily users in March 2012, which increased to 1.66 billion in 2019. Social networking has become commonplace in modern society and continues to grow in popularity, especially among teens and young people. Social interaction is an essential part of the human experience and always has. Before the technological revolution and construction, relationships were formed and sustained through face-to-face contact, written, oral and non-verbal communication. The emergence of the digital age has shifted the communication method from face-to-face communication to computer or smartphone mediated communication (Drussell, 2012).

Interpersonal communication can be both verbal and written, along with nonverbal cues for relationship development and maintenance. The Interpersonal relationship is the association between two or more individuals, which may range from short to long lasting. This association can be based on affection, friendship, and daily contact of companies, love, and any other type of social engagement. Apart from this, interpersonal relationships are also formed in terms of social, cultural, and other influences (Mwangi, 2013). Failure to communicate effectively can harm young adults' interpersonal communication and relationships. In this situation, Social Networking Sites help to develop and maintain relationships quickly, easily, and economically. Due to social networking sites, users also can connect virtually with others as they meet

¹ Communication with speed, from anywhere and anytime.

² The way of online interaction, this involves the level of affection and emotion as parallel to face-to-face communication.

face-to-face (Giffords, 2009). Social networking sites allow their users to interact virtually without requiring a friend, family, loved one etc. Besides, young people see their online relationships as relationships that can be very trustworthy and meaningful in their real lives (Mishna, et al., 2009). The meaning and emotions attached to these virtual relationships make human interactions very unpredictable in the future.

Today's young people are using technology, such as the Internet, more than any other medium of communication (Drussell, 2012). Recent research has shown that technologies of communication are exponentially growing with each generation and becoming a pillar of our society (Mishna et al., 2009). The Internet's enormous technical complexity has expanded to include thousands of networks, millions of computers, and billions of users worldwide (Greenfield & Yan, 2006).

The use of information and communication technologies has become common in interpersonal communication between individuals. The use of ICTs has steadily increased over the past few decades. According to a recent report by Pew Internet and the American Life Project nationwide, 73 percent of adults are using the Internet and going online, 78 percent of adults use a cell phone for communication, and 93 percent of teens population used the Internet for Interpersonal communication (Jones, 2009). Lawson & Leck, (2006) quoted in their study that from the 1990s, the Internet has become an essential and significant vehicle for social encounters. Information and communication technologies such as computers, the Internet, E-mail, and mobile phones have changed the way of communication (Lawson & Leck, 2006). These days information and communication technologies have been becoming a unique platform for interpersonal communication, where we can interact with each other from anywhere. Texting, tweeting, instant messaging, E-mailing, blogging, and other social networking sites such as Facebook, WhatsApp, Twitter, Instagram are a good platform for digital interpersonal communication.

ICTs have changed the way people interact to establish interpersonal relationships. It also affects the face-to-face communication process and provides the different types of video chat platforms. Face-to-face interpersonal communication not only happens with verbal symbols, but it has sometimes happened with nonverbal symbols also, such as facial expressions, kinesics (gestures and postures), eye behavior, and others. The progress of ICTs has now transformed these nonverbal symbols into digital nonverbal cues  and graphics. This change has brought tremendous changes in the communication process, which provides us with new patterns for interpersonal

communication. These modern digital nonverbal cues  or Technology-Mediated-Graphics are used in online and text-based interpersonal communication. Which include a variety of Technology-Mediated Graphics (pictograms), for example, emoticons, emojis, stickers, moving and animated emojis, and images?

Text communication has become quite a trend in communication. Some people use text communication to get invitations, to say goodnight or they love them, to avoid communication, to plan meetings, to connect with friends, family, and others. (Leung, 2008). College students frequently use text messaging for communication. The text message is simple, fast, convenient, and easy to use. (Grinter & Eldridge, 2001). According to Perry & Lee (2007), “text messaging is displacing face-to-face communication” (Perry & Lee, 2007. p.74).

Text messaging is used for convenience, especially among university students. It can also be even addictive. Text can be possible from anywhere, for example, while in the classroom, driving, in the movie theatre, in the school, workplace etc. (Hemmer, 2009). Functions and usability are the most important determinants for IM users in deciding their use. Instant Messaging has been found to be very helpful in cases where communicating directly, is not easy or comfortable. More like informal face-to-face communications, Instant Messaging interactions are quick, fast, spontaneous, and contextual. The ability to enable synchronous communication in a distributed area is very appealing to its collaboration communication (Zhou, 2005).

Besides, of this, now people also using varieties of textisms during text messaging and instant messaging on social networking sites for interaction, which become the new forms of language and communication patterns. The advancement of ICTs has also provided hyperpersonal communication patterns for interpersonal communication. These patterns have become a substitute for face-to-face communication, and even now, it has replacing talk on phone communication. Whatsapp, Telegram, Facebook, Instagram, Twitter, IMO, Skype, WeChat, Snapchat, Google+ QQ, Viber, Sina Weibo (like twitter), line, linkedIn, myspace, Snapfish, classmates, live journal, etc., several social networking platforms which affect the way of interaction, and also replace and affects the face-to-face communication.

One of the earliest research studies published by American Psychologist explored the correlation between Internet use and social participation and psychological well-being. Results show that increased internet use has affected social involvement, loneliness, and an increase in depression symptoms. It was also found that the more

internet is used, the less the communication between family members. According to the *Pediatrics Journal*, people who devote too much time to Facebook suffer from Facebook depression. The University of Stony Brook has found that email, texting, and social networking may have a negative effect rather than on dispute resolution (Petrillo, 2011). A 2010 study by Turnbull found that both Older and newer generations see that personal contact (FTF) is the best way to connect, but today's lifestyle changes have made personal contact (FTF) less possible. Youth, however, prefer to communicate by text that lacks a communicative quality, as well as a lack of nonverbal cues that support understanding and emotion (Turnbull, 2011).

Now, most of the face-to-face interaction has shifted to technology-mediated communication. Computer-mediated communication still affects all people around the world, especially young people using SNSs (Mwangi, 2013). Social web sites allow people to share ideas, images, updates, activities, events, and interests in their network with others. For example, Facebook allows people to make online profiles and friends who can post to each other's pages and view each other's profiles. (Ellison et al. 2007). It can also be made contact and relationship with acquaintances. Young people use the Internet, mainly for entertainment and communication with family and friends. Through instant messaging, people keep in touch regularly and check what going on in their friendship circles. It allows people to share mutual interests, take photos, and connect with acquaintances, causing people to spend many hours on social networking sites. Youth groups are the most affected by internet and social media. (Mwangi, 2013).

4.3 Application Venues of TMC in Interpersonal Communication

In this study, Technology-mediated Communication has divided into two parts synchronous communication and asynchronous communication. When two people are actively communicating, communication takes place synchronously. The two forms of synchronous communication are video-conferencing and instant messaging. Asynchronous Communication, on the other hand, refers to instances in which a dialog does not depend on an immediate response (Crumlish, & Malone, 2009). In other words, the recipient does not immediately answer to the sender. Examples of asynchronous Communication include e-mails, video messages, and text messages.

The way people communicate in their work, society and education vary widely, not only according to the environment but also from the point of view of communication. Communication in a technology-mediated format has an impact on

various aspects of interpersonal communication. TMC is capable of overcoming the barriers of communication, such as physical and social limitations and allows interaction between people who do not share the same space. This makes it easier to engage in communication with others regardless of time or place. It also helps individuals collaborate on communications that are impossible due to factors such as geography.

TMC systems specially developed for communication between two persons or within a very small group are classified as interpersonal (Chimah, et al., 2014). TMC has provided the following tools and techniques for communication:

4.3.1 E-mail

Electronic mail is used to send text-based messages via a channel of communication. An e-mail with an additional advantage rate is similar to regular mail. Both sender and recipient can communicate asynchronously at convenient times by E-mail. It is one of the examples of mediated interpersonal communication. E-mail is typically dyadic, and only two participants are involved. However, it can also be marked more than individuals can at a time, in which case a group communication can be called (Khullar, notes.com). An E-mail has attractive communication qualities that are relevant to formal interpersonal communication. E-mail's textual nature is one of the most attractive qualities. E-mail is essentially written communication that can be sent almost at the speed of speech.

Apple iPhone, Gmail, Apple iPad, Google, Android, Apple Mail, Outlook, Google Android, Yahoo! Mail, and Windows Lives Mail have some popular e-mail services that have often been used for formal and informal communication. These all are the top 10 e-mail services which mostly used by the amongst people, according to Litmus Email Analytics worldwide 2018 report. According to Email Statistics Report, 2015 – 2019, the user of e-mail continues to grow worldwide. In 2015, nearly 2.6 billion users used e-mail worldwide, and by the end of 2019, it will increase to over 2.9 billion. According to the E-mail Statistics Report, 2015 - 2019, e-mail users have continued to grow worldwide. In 2015, around 2.6 billion users accessed e-mail worldwide and by the end of 2019, it has grown to over 2.9 billion. The average number of e-mails sent/received per day on a daily basis increased at a rate of 5 percent during 2015 - 2019.

In formal interpersonal communication, according to the EZTexting 2019 report, 44 percent of organizations use e-mail to send service notifications,

appointments, and reservation reminders, compared to phone calls. For the promotion of any product, events, discounts, and coupons, e-mail has also dominated on other mediums.

4.3.2 Texting

Texting is a method of transmitting alphabetic and numeric character-based messages between two or more users by an electronic device. Text messages transmitted through a cellular network or by the Internet connection. The term has originally used to refer to messages sent using Short Messages (SMS). SMS provides limited space for per the messages, which are 160 characters. However, most modern SMS clients are able to work on this artifact automatically and transparently. SMS standards also include the broadcasting capacity that allows multiple customers to receive the same message simultaneously. The gateways allow transparent SMS messages exchange between carriers and other messaging modalities (Techtarget.com).

The introduction of new vocabulary has affected the culture of text communication. For example, the use of pictorial symbols known as emojis instead of specific words and phrases, and of textisms (abbreviations) such as "c u" rather than "See You.". These two techniques offset limitations on message length and text entry. Some Basic features of texting:

- i) The app is not necessary.
- ii) No need for Internet connection
- iii) It is available on all cell phones.

Interpersonal Communication is used consistently, whether consciously or unconsciously, in which texting has played a major role in long-distance communication. Text messaging is use by people to arrange meetings, express their feelings, prevent oral communication, and contact friends. Text messaging is a simple, fast, easy, and multi-task approach (Haynes, 2012). Text messaging has replaced face-to-face communication rapidly. Adams, et al. (2008) found that text messaging is highly used by college students, as it is easy to use in class, theatre, mall, office, and even while driving.

According to Pew Research Center Global Attitudes & Trends report (2012), text messaging is used globally. In a survey of 21 countries, India was one of them; found that 75 percent of cell phone owners use text for communication. Texting is widely used in both rich and developing countries. In 19 of 21 countries, most mobile owners use text messages regularly. Formal communication, according to EZTexting

2019 Report, 84 percent of organizations inform, communicate, and updates their consumer through text messaging. Thirty-two percent of service provider organization send service Notifications by text messaging than phone calls.

Burke, K (2016) updated their blog in January 2019; in this, Burke mentioned that there are over 5.035 billion testers in the world. Besides, of this, 97 percent of smartphone owners are text regularly. According to SMS marketing trends and statistics- 2018 report, about five hundred million messages are sent a day, which is about 182 billion a year globally. These huge numbers made messaging the most rapidly expanding route of marketing. About 66 percent of the population globally use SMS services to communicate with business and in the last five years, the number has almost doubled. The following basic trends of SMS based on this reports are:

- i) One time passwords
- ii) Alerts and Push Notifications
- iii) Event Reminders
- iv) Customer Support

The following characteristics of Texting or SMS attract people to use it in interpersonal Communication (Formal and Informal):

- i) SMS is highly efficient and fast. In seconds, it can be delivered.
- ii) SMS is very personal as it is directly sent to the mobile phone of your receiver.
- iii) Global Reach
- iv) Low and affordable cost
- v) Easy and simple
- vi) Accuracy
- vii) Time-saving
- viii) Capable of tracking
- ix) Trustworthy

4.3.3 Instant Messaging

Instant messaging, often shortened to IM or IM'ing, is a real-time, text-based communication similar to chat. It is a stand-alone application or embedded software. IM usually takes place between or among two or more individuals using the computer, smartphone, or other devices. It involves communication through a network, often via the Internet, and includes live voice or video in advanced mode. Sometimes we can also transfer the file, but the size should be limited based on software. Through this, we

can communicate only to select people who are on our friend's list, family list, or we can say in our contact list. In this, we are able to recognize that when someone is online. IM differs from other online chat categories of technologies, such as online chat is a multiuser platform, where we can communicate among users that is usually anonymous.

Usually, IM differs from e-mail in the term of immediate exchange of the message. In the e-mail case, we can be sent messages when the recipient is not online. IM is also usually session-based, with a beginning and an end. Because it is usually meant to emulate in-person interactions, individual messages are therefore always in brief. In contrast, e-mail typically reflects a longer-form, letter-writing style. Both users need to be online at once in order for IM to communicate as intended, although nearly all instant messages now enable asynchronous online and offline interactions between users. If the messaging is not enabled offline, trying to IM an inaccessible user would result in a warning that the connection cannot be completed. The intended recipient must also be prepared to accept instant messages since the IM client can be configured to refuse certain users(TechTarget). Following are some basic features of Instant Messaging:

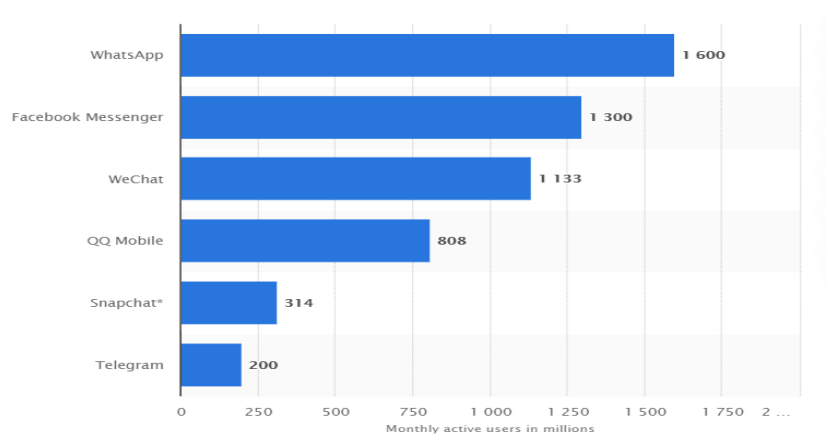
- i) The same app is mandatory for the sender and receiver.
- ii) Internet connection is mandatory.
- iii) To use its smartphone is necessary.

4.3.3.1 Popular Instant Messaging Apps

There are numerous messaging apps that subscribers can choose from in this era of technological development such as Apple Messages (formerly iMessage), Cisco Jabber (based on Jabber), Facebook Messenger, Google Hangouts (formerly Google Talk), IBM Sametime, ICQ, Line, Pidgin, Microsoft Skype (includes Skype for Business), Slack, Telegram, Trillian, Viber, WeChat, WhatsApp Messenger, Windows Live Messenger, Yahoo Messenger, WeChat, Telegram Messenger, IMO, KIK, Snapchat, etc.

4.3.3.2 Most Used Instant Messaging Apps

The following figure shows the most popular instant messaging app on a global basis, often used by people for interpersonal communication.



Source: <https://www.statista.com/2019>

Figure 4.1: Most used Instant Messaging apps

According to Instant Messaging statistics Report 2015-2019, in 2015, there were over 3.2 billion worldwide Instant Messaging accounts. It is estimated that figure has grown an average annual rate of about 4 percent in the last four years and has grown to more than 3.8 billion by the end of 2019. WhatsApp blogs recently announced that more than 2 billion people worldwide are now actively using it. Among the Facebook family messaging apps, WhatsApp and Facebook Messenger have long played a leading role in terms of user numbers. Based on Facebook's Q4 / 2019 result, more than 2.9 billion users remain active in the Facebook family every month. Facebook (social media) alone has 2, 5 billion monthly users worldwide. Besides, there are 1.6 billion active users on WhatsApp, and 1.3 billion users are actively using FB Messenger. Ninety-seven percent of all Indian Smartphone users use daily basis Mobile Apps. If messenger based communication is considered, then WhatsApp is the first choice of 96 percent of people. In 2017, the number of active users was 200 million on WhatsApp in India. Currently, it has increased to 250–300 million (Clement, 2019; Bucher, 2020).

4.3.3.3 Characteristics of Instant Messaging

The following characteristics of IM attract people to use it in interpersonal Communication (Formal and Informal):

- i) Through instant messaging, people can able to send images and emojis based messages.
- ii) Instant messaging (Facebook messengers) can be used to send money to others.

-
- iii) Instant messaging supports the escalation form of communication. It has the ability to group chat, voice calls, or video conferencing.
 - iv) It permits users to see whether their contacts are eligible — not only if they are online or offline, but also if their status is free or busy.
 - v) Some IM Platform allows users to set a message to detail their limited or unavailability.
 - vi) In an active session between two users, the majority of the platform can also inform one user when another user enters in real-time.

Internet slang, word, and shorthand emotional expressions are common through IM. A common expression like "BRB" (be right back) and "TTYL" (talk to you later) are often can be used together with emotional phrases and emoticons. Messaging applications have become an important element in our everyday lives. It helps us maintain contact with people in close proximity or different geographical places. The applications have features that make communication beyond normal messaging services more interesting.

4.3.4 Social networks

Social networks are an online platform used by people to develop social links or social relations. It is the intermediary communication of interactive technology through which ideas, information, and public opinion are exchanged and created. It is basically Internet-based social media sites. It is used as a medium to stay connected with friends, family, co-workers, teachers, acquaintances, employees, and customers. It also allows users to share digital photos, videos, posts and other information in online and real-world activities and events (Kenton, 2019).

The advancement and attractive features of Social media have changed the way people live. It is all over the place, it is impossible to avoid, and it is powerful and inevitable. Social media has grown rapidly since 2004. There is no denying that social media platforms have become a major source of information and news. MySpace was the first social media site to reach a million active monthly users-this milestone was achieved around 2004. Indians access more applications now than citizens do of any other country. Indian user spends 17 hours each week on social media platforms, which is more than other countries like China and the United States (Kenton, 2019).

The worldwide use of social media continues to grow. It is undoubtedly one of the most popular online activities used by users. According to the social media, statistics report 2019, worldwide, there are 3.5 billion social media users, and that

number is increasing. That is roughly 45 percent of the current population (Emarsys, 2019). Facebook alone has 2.4 billion monthly active users worldwide out of the total social media users based on Facebook's report 2019. According to this report, it has 1.6 billion daily active users worldwide. Eighty-eight percent of people operate Facebook through their mobile devices. Over 300 million photos are uploaded every day through Facebook, and around 8 billion videos are viewed per day. On average, five new accounts are created every second (Emarsys, 2019).

4.3.4.1 Popular Social Media

There are many social media, but for this study, the researcher has only taken those that are most used and popular; and plays a role in interpersonal Communication (Informal and Formal Communication) and other activities such as education, information, shopping, planning, etc.

i) Facebook: This is the most popular website on the Internet for social networking. Facebook is a favorite place for users to create their own space and connect with friends, share photos, share videos, chat about what they are doing, and so on. The following are basic facts and figure based on Global Clickz 2019 statistics:

- Facebook is used daily by 76 percent of adults (Sprout Social, 2016).
- Eighty-three percent of Facebook users are women, and 75 percent are men (Sprout Social, 2016).
- India has the highest number of Facebook users as compared to other countries (Statitsa, 2018).
- Facebook is used by 74 percent of people for educational or professional purposes (HubSpot, 2017).
- To find interesting content, 76 percent of people use Facebook feed (HubSpot, 2016).

ii) Instagram: Instagram created in 2010 by Mike Krieger and Kevin Systrom. It is mainly used to share photos and videos on a public and private basis. It was acquired by Facebook in 2012. The following are basic facts and figure based on Global Clickz 2019 statistics:

- Instagram users worldwide are aged 18–24 and 25–34 after that (Statitsa, 2018),
- Seven out of ten hashtags are branded on Instagram (Sprout Social, 2018).

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- Every day more than 400 million Instagram users create their Instagram stories (Statista, 2018).
- iii) **Pinterest:** Pinterest is a place where people go and get motivated, unlike most social media sites, where interaction is the focus. It established in 2010 by Evan Sharp, Ben Silbermann and Paul Sciarra. The following are basic facts and figure based on Oberlo (2019) statistics:
- Currently, Pinterest has 322 million active users per month (Pinterest, 2019).
 - More than 200 billion pins are saved on Pinterest (Pinterest, 2019).
 - Pinterest is used by six out of ten millennials to discover new items (Kleinerperkins, 2018).
 - Every month, Pinterest searches over two billion text-based and directed searches (Pinterest, 2018).
 - Pinterest is used to market by 28 percent of all marketers around the world (Statista, 2019).
- iv) **Google+:** Google Plus is a Google-owned social media network. It was introduced in 2011 and was intended as a social layer for all social products. Over the years, it has changed the purpose and purpose of social networks, due to which it officially sunset in early 2019. It had achieved a few interesting milestones in its eight years of existence. According to Dustin Stout (2019) statistics, it is as follows:
- In its peak, Google+ had some 395 million active monthly users.
 - Over two billion registered users are estimated to be in Google+ around the world.
 - Most users of Google+ were aged between 15 and 34 years.
 - On average, a Google+ user is estimated to be spending 3 minutes and 46 seconds per visit.
- v) **Tumblr:** This is a website for micro-blogging and social networking launched in 2007. The following are basic facts and figure based on Dustin Stout (2019) statistics:
- Tumblr holds over 452 million blogs.
 - About 371 million visits are made monthly.
 - More than 166 billion posts have been published on Tumblr.
 - Every month, around 7.2 million new blogs are created.
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- About 46 percent of visitors to Tumblr are between the ages of 18 and 34.

vi) Twitter: *"[Twitter is] what's happening in the world and what people are talking about right now"* (Dustin Stout, 2019). Twitter was founded in March 2006 by Jack Dorsey, Biz Stone, and Evan Williams. For many people, an experiment became an addiction to sending messages. For many, an experiment quickly became a messaging addiction. The following are basic facts and figures about Twitter-based on Obero (2019) statistics:

- On Twitter, there are 330 million active monthly users, and 145 million active daily users (twitter, 2109).
- The average twitter session is 3.39 minutes (Statista, 2019).
- The first quarter of 2019 saw 11.7 million Twitter downloads on the App Store (sensor tower, 2019).
- Five hundred million tweets are sent in a day (mention, 2018).
- The emoji "Face With Tears of Joy" is Twitter's most famous emoji, and has been used over two billion times (emojitracker, 2019).

vii) LinkedIn: LinkedIn is a professional networking site founded in 2002 but later introduced in 2003. The following basic facts and figure based on Global Clickz 2019 statistics:

- Thirty-nine percent of LinkedIn's 500 million users pay for a premium account (LinkedIn, 2017).
- The average user of LinkedIn spends 17 minutes per month on the site (Wordstream, 2018).
- There are 562 million members on LinkedIn (LinkedIn, 2017).

4.3.5 Blogs

A blog shortening of "weblog" is an informational website and online Journal or diary. A blog usually contains text, images, videos, animated GIFs, and even scans of old offline, physical diaries or journals and other documents of a copy. Blogs are used for personal, exclusive group sharing and public engagement. It is "a website that usually a small group or individual website is regularly updated and written in a conversational or informal style." When a blog is made available for the public, it is usually possible for someone to find it through links on their personal or business website and online keyword search engines, social media profiles, e-mails and e-newsletters (Jamie, 2019).

The blog content can be displayed on one continuous streaming page or posted on single pages accessible through one or more pages as post-title links, excerpts, and related tags in a list-style format. Blogs began as a natural extension to computer utilization and the creation of the early forms of the Internet as military, scientific, and academic government networks. The first blog was implemented as an open-access diary around 1994 or 1995, sharing personal thoughts and facts about family events, academics, careers, travel, and other topics (Jamie, 2019).

4.3.5.1 Blog Structure

Blogs have changed their appearance over time, and now blogs have various items. However, most blogs have some standard characteristics and structure. The following are common features of a typical blog:

- i) Menu or Navigation Bar header,
- ii) Highlighted or latest blog posts' are the content field.
- iii) Social profile sidebar, favorite content or call-to-action content,
- iv) Footer with related links such as disclaimers, confidentiality policies, contacts and so on.

4.3.5.2 Blogging Statistics and Facts

According to Optinmonste.com (2019), statistics and facts are the following:

- i) Around 409 million people view over 20 billion pages every month.
- ii) Every month, WordPress users publish around 70 million posts.
- iii) Readers add 77 million new blog comments every month.
- iv) The average blog post writing time is 3.5 hours.
- v) Forty-six percent of bloggers post their blog ourselves, and 54% of bloggers get their work edited by the editor.
- vi) Blogs have been classified as the fifth most trusted source for gathering information online.
- vii) Internet users read blogs for 77 percent.
- viii) In 2017, 66 percent of marketers used their blog content on social media.
- ix) LinkedIn is the most powerful social media network for content distribution and public participation.
- x) 95.9 percent of bloggers encourage their blog posts through social media.
- xi) As of January 2019, Tumblr had 456.1 million blog accounts.
- xii) In 2019, there were more than 500 million blogs.
- xiii) There are more than 440 million blogs on Tumblr.

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- xiv) The blog post averages 1151 words, which in the last five years has grown by 42 percent.

4.3.6 Video Conferencing

Live, visual connectivity between two or more individuals residing in separate places for communication is a video conference. Video conference offers the simplest means of transmitting static pictures and text from two places. It offers high-quality audio and full movement video transmissions from multiple locations to its most sophisticated. Formal Communication is a key component of unified communication applications and web-based conference services for the desktop video conference. In contrast, cloud-based virtual conference room services allow video conferencing operators with a minimum investment in infrastructure (TechTarget). The following are components of a video conference system:

- i) For transfer of data, a high-speed broadband Internet connection, a data transmission network, is using similar technology like voice over Internet protocol.
- ii) Two or more webcams is providing the input of a video.
- iii) Two or more microphones are located on an individual or in an audio input device.
- iv) A device, monitor, TV, or projectors are capable of transmitting video output.
- v) Headphones, laptop, or voice speakers for audio production has been used.
- vi) Acoustic echo cancellation is software to support a real-time audio reduction (AEC).

4.3.6.1 Popular Video Conferencing Software

Together with other current deployments, this emerging use of video and web conferencing technology helps significantly strengthen the crucial role of video and Web Conferencing at work. The following are popular video conferencing software often used in formal and informal communication.

- i) **Zoom:** Zoom is perfect for people who work remotely or who members of a remote team are. Zoom enables us to organize meetings in a personal meeting room simply and quickly or regularly.
- ii) **Google Hangouts:** Google Hangouts is an easy way to connect and use Google contacts for personal or business purposes.

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- iii) **UberConference:** The UberConference's free version is ideal for 10 or fewer teams. It offers unlimited video conferencing tools such as 1-1 or monthly debriefs for recurrent meetings.
 - iv) **TrueConf online:** TrueConf provides a free plan for video calls involving up to three people. For small teams or individuals that need a simple tool for hosting or collaborating with small groups, it is great.
 - v) **Skype:** Skype's free version works for small teams with less than 10 members in total. It is a great way to easily video chat with a computer, phone or tablet and is typically used for small teams or 1-1.
 - vi) **FreeConference:** It is used to hold freeconferences, ideal for small groups or meetings with five or fewer participants. One of its major benefits is its convenience; no downloads are necessary to start using this video conferencing tool.
 - vii) **Lifesize Go:** Lifesize Go used by remote employees, freelancers, or clients who rarely host group meetings.
 - viii) **Slack Video calls:** Slack users can benefit from the call function by just using the /call command or clicking on the telephone icon at the top of the talk with another Slack user.
 - ix) **Facebook Live:** Facebook Live is ideal for companies, influencers, or individuals who want to broadcast demonstrations, videos, or display their corporate culture during their live streaming.
 - x) **GoToMeeting:** It helps businesses bring together dispersed people and mobile employees in one virtual location with this video conferencing platform.

4.3.6.2 Video Conferencing Statistics and Facts

According to Wolfe (2019), the basic statistics and facts about video conferencing are the following:

- i) Sixty-six percent of managers see the mobile video and real-time data sharing as essential elements of their daily communications.
- ii) In order to reduce the need for travel, 56 percent of worldwide CFOs intend to invest in video conference systems.
- iii) 77.2 percent of corporate users support meetings with remote workers through video conferencing.
- iv) Seventy-five percent saving is made by using cloud-based video services compared with traditional multi-point hardware controllers.

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- v) Seventy-five percent of CEOs substitute video conferences for conference calls.
 - vi) For everyday activities, 58 percent of companies use video conferencing.
 - vii) Video is used the most for businesses by 43% of large companies and 27.6% of small companies.

4.3.7 E-Shopping

E-commerce or electric trade means the purchase and sale of goods and services through electronic networks, particularly the Internet. Technology also has contributed to the growth of electronic markets where suppliers and potential buyers are combined, and mutually beneficial trade takes place. Online shopping websites are designed to allow people to sell, advertise, and buy products via their websites. In 1990, Tim Berners-Lee developed the first World Wide Web server and browser. According to Kathryn (2010), a first online bookstore was opened by a man named Charles Stack a couple of years before the launch of Amazon. Nevertheless, the first businesses to popularize online shopping are Amazon and eBay, which were launched in 1995 and 1996. Both two firms are also today one of the largest online shopping destinations (UKEssays, 2018).

Consumers can now buy anything on the Internet, which helps them save time and money. The biggest advantage of online shopping is that people can shop from anywhere and at any time through their mobiles and laptops. It also saves time for consumers to travel to retail stores. The convenience includes finding a product, wasting time browsing, purchasing service, full contact details, and reducing the overall browsing effort. In addition, lower costs and availability also play a major role. It allows customers to check for offers on goods with several different suppliers quickly (UKEssays, 2018)

4.4 ICTs in the process of Face-to-Face Communication

Before the use of the Internet and mobile phones, people used to communicate face-to-face. Then the mail was sent to the public, and contact was made with the landline. Now, through the Internet, cell phones, and other technological devices, people can be in almost constant contact with one another. The same physical dimensions as face-to-face communication have been becoming the reason for the replacement of real communication.

To explore the objective - two of this study, the researcher followed the displacement theory of communication and tried to find out the reason for the replacement of FTF communication by TMC. As know for decades, the main way

people interact with each other was face-to-face communication, and other forms were often considered inferior. Communication can generally occur on a number of channels, such as face-to-face communication, video calling, telephone calls, e-mail, voicemail, text message, instant messaging, social media, or even virtual online worlds. According to the theory of the media niche, each channel has different benefits and special gratifications that can bring relative advantages to a channel (Dimmick, & Rothenbuhler, 1984). The emergence of new communication mediums involves new satisfaction-seeking parts, in which usage patterns either become less important or fluctuate and become obsolete (e.g. telegram) by previously established channels.

In this study, the researcher has analyzed the effects of ICTs on face-to-face communication. Globally, according to Dienlin, et al. (2017), 15 percent of the overall population in Germany used Social networks in 2007, a figure which in 2014 rose to 46 percent. With more than 31 million active users in Germany in 2015, Facebook was the most popular Social network, followed by Google+ and Twitter. In terms of instant messaging, 32 million people (39 percent) used WhatsApp, followed by Facebook Messenger. With the growing use of Social networks and Instant Messaging, it is plausible that these new forms of communication have come to the detriment of traditional communications like Face-to-Face. While several studies examined the possible relocation or reinforcement impacts, most of these studies are theoretical or focus on other media or have used cross-sectional design (Dienlin, et al. 2017).

Communication from face-to-face is considered the wealthiest and, therefore, often the best means to communicate, particularly in ambiguous, emotional, and important situations. However, this overall idea has been widely challenged. Walther's hyperpersonal communication model argues that communication mediated is not inferior but quite distinct, which implies both unique risks and advantages. For example, users can easily access hundreds of people on social networks to receive information and, via IMs, people can immediately address close links without having to synchronize time and place (Dienlin, et al. 2017).

Some Technology-Mediated Communication has novel affordability, which promotes different user behaviors. According to Smock, et al. (2011), for social interaction, information sharing, entertainment, escape, or formal advancement, mainly people use social networks. It includes one-to-one and one-to-many communication. Possibly a very large public, including strong and weak ties, need to be accounted for.

Conversely, IM communication consists mainly of four different types: exchange of information, the articulation of experience, technical support, and friendly association (Cui, 2016). There can be several reasons for the replacement of face-to-face communication by TMC. The fundamental explanation could be that modern TMC increases the overall communication potential. Through TMC, people can communicate without having to synchronize space and time anywhere. If people are close to each other, they use more networks to maintain a relationship with them, which increases media usage. New social interaction methods are always to eliminate old social interactions as if a person asks a question, and they might get an answer. Communication-based on TMC enables people to work multiple times and have conversations simultaneously. There are also some theoretical reasons for proposing that TMC displaces or decreases Face-to-Face Communication. Social networks and IM communication draw on specific benefits in terms of media niche theory.

FTF has been replaced by TMC and is being used for other social activities such as planning events, gossiping, spreading news and even giving praise. A substantial part of face-to-face Communication now takes place routinely online.

Based on displacement theory, the media usually replace each other. For example, e-mail and text-based communication is replacing phone communication. According to a Flanagin (2005) study, 71 percent of people used instant messaging for communication compared to landline phones, and 38 percent used e-mail compared to phones. In a different stage of research, researchers have examined and found that people ignore existing social relations and become dependent on the Internet or social networking sites (Flanagin, 2005). Another Masur, (2014) study showed that some of the social activities of some people had decreased since they began to use social networking sites.

Nowadays, people prefer text-based communication patterns more for interaction than other mediums. With the help of TMC, people can communicate with people who are far away. In particular, people are able to stay in touch with strong ties and, as links with strong relationships, associate greater well-being through social networking sites. With the help of SNS, users can discuss strong and weak connections with more and more individuals. Besides, based on the media-rich theory, TMC has currently more enriched as it now allows users to send pictures, exchange voicemail, and also use emoticons and emojis for communication. It promotes self-revelation and helps people to interact with shy people (Joinson, 2001). In this way, TMC makes

communicators stronger and given that, asynchronous communication enables greater control over self-presentation. The development of social networks has significantly increased children's and teenagers' time spent on their computer screens. This has led to an intensity reduction both in the family and in the broad social environment of interpersonal Communication.

4.4.1 Hyperpersonal Communication

Hyperpersonal communication is *"Combinations of media attributes, social phenomena, and social psychological processes may lead TMC to become 'hyperpersonal,' that is to exceed FTF interpersonal communication"* (Walther, 1996, p, 5). TMC communication is often more satisfactory than face-to-face interactions. For example, if an individual is generally nervous at meeting new people, he or she opt for communicating via TMC in order to establish a romantic relationship that enables more anonymity and less pressure on nonverbal indicators, physical appearance, choice of clothing, etc (Walther, 1996). Hyperpersonal communication gives the sender, receiver, channel and feedback a completely integrated view of TMC, as each contributes to hyperpersonal interaction within the communication. Senders can formulate messages in accordance with their ultimate social goals, and recipients can return their partner with an equally idealized message. By interacting with TMC, individuals are not required to communicate in real-time and are able to free themselves from the additional pressure to react immediately. TMC enables online daters to view their messages for a longer time, while face-to-face communication requires an immediate response (Walther, 1996).

Technology-mediated communication patterns operate in three different ways, according to Walther (1996). First, TMC can work impersonally particularly in cases where future interactions are not expected. Impersonal communication happens when software-imposed interaction structures contain anonymity and thick layers. Second, TMC can interpersonally function when users have time for information exchange, impressions, and value comparisons. Walther points out that TMC is no less personal than face-to-face dialogue if people expect long-term relationships. Finally, when users create impressions and manage relationships in ways that are more positive than face-to-face, TMC is hyperpersonal. Walther points out that when communication is asynchronous or TMC is the only type of communication that individuals share, TMC is likely to work hyperpersonal (Walther (1996).

Previous research has explained that in some communicative interactions, impersonal communication via TMC could be valuable. Dubrovsky (1985) explained that computer conferences in working conditions allow individuals to filter out affective communications components and stress material and reduce social influences. People could, therefore, focus more on the task without distracting themselves from non-verbal indicators or environmental factors (Zmyslinski, 2011). Steiner (1972) also explained that TMC's impersonal nature could improve group decision-making. CMC permits groups to remove negatives from interactions such as a member's domination, pressure to comply, and self-awareness between low-level members. The impersonal nature of TMC in partnerships may also allow people to meet partners with less stress. For example, when people first contact their potential partner online, especially text-based messages, they do not care about their appearance or neurological habits in the first day's face-to-face interactions (Steiner, 1972).

The media richness theory developed by Daft, Lengel, and Trevino (1987) is another approach to explore the differences between face-to-face and online communication. The theory of media richness assumes that there are different media capacities for ambiguity resolution, interpretation requirements, and data transmission. TMC is one of the lightest and most rich media. However, if TMC enables users to communicate via video chat and synchronous instant messages, it is considered richer than e-mail such as asynchronous text CMCs (Daft, et al, 1987).

Walther (1992) argued that TMC could function better and more diverse than it had previously reported. He noted that early studies only examined short periods of time in FTF and online communication for individuals. Besides, Walther (1992) explained that TMC's unchangeable, impersonal quality can only relate to initial interactions between unknown individuals and could dissolve as communication continues. Without a doubt, the relationship progresses through CMC.

4.4.2 Digital Non-Verbal cues (Emojis 🐱) in Interpersonal Communication

Texting with emojis, abbreviations, GIFs, and memes have become the new standard in today's digital age. The downside is that the text lacks all verbal and facial indexes, meaning that messages can often be misread or misinterpreted. Such a small thing as punching or capitalizing can change the entire tone of a text message. Emojis can seem like a trivial or even lazy creation, but a recent study found that they could actually contribute to the communication of tone and meaning in written form. Researchers from Binghamton University found that exclamation points, emojis and

punctuation help substitute the visual indicators found in face-to-face communication. Klin's research suggests that communication development in language appears in texts and texts. As various communication strategies are developed, people create new language structures to work with new technologies. Klin's study shows that texts like emojis and exclamation marks are necessary to convey meanings and are a testimony to the evolution of language (Arnold, 2017).

Koh found that images are the latest form of communication that obviously has revolutionized the communication of the social media generation. Koh also found that in recent years 1.2 trillion photographs were taken on smartphones, and from them, five billion emojis were sent (Pringle, 2018)

Technology-mediated communications tend to be quick, and a picture is worth a thousand words as the old adage goes. Since a large amount of casual or trivial contact takes place in-or in combination with other events, visual images such as emojis serve as a simple shortcut to reduce the time and energy necessary to communicate. The author of *The Emoji Code*, Vyvyan Evans, said that emojis also contribute to the reproduction of the real world, digital features of human communication. He states that 70 percent of the meaning of oral communication comes from nonverbal signs. Emojis add text personality and create user empathy. There is a lack of current sentiment in a text message, even in long text messages, feelings like face to face are not expressed. In this case, emojis help to convey some degree of emotion. Emojis is a visual form of face-to-face communication that is more accessible, or universal, than traditional alphabetical scripts. Emojis link the written form directly to the reference object or emotion (Pringle, 2018).

4.5 Text-based communication in Interpersonal Communication

People constantly use interpersonal Communication, consciously, or unconsciously. In today's age, communications in e-mails, chats, social networks, instant messages, and text messages have developed rapidly. Text messaging has become the dominant form of long-term Communication. It is used to arrange meetings, express feelings, prevent oral Communication, and connect with friends. Text messaging is a quick, easy, convenient, and multi-task way. However, the text message has a negative impact on our face-to-face Communication. Face-to-face Communication is fastly replacing by text messaging (Emanuel, 2008). Text messages have replaced the verbal skills. Text messaging enables the user to communicate their message to the receiver using both traditional languages and the shorthand. An example

of shorthand would be the letter 'u' to represent the word 'you' or the letters 'LOL' to 'laugh out loud.' A kind of text language has been developed through the invention of the shorthand. Since this development, the meaning of the messages has become easier to understand (Emanuel, 2008).

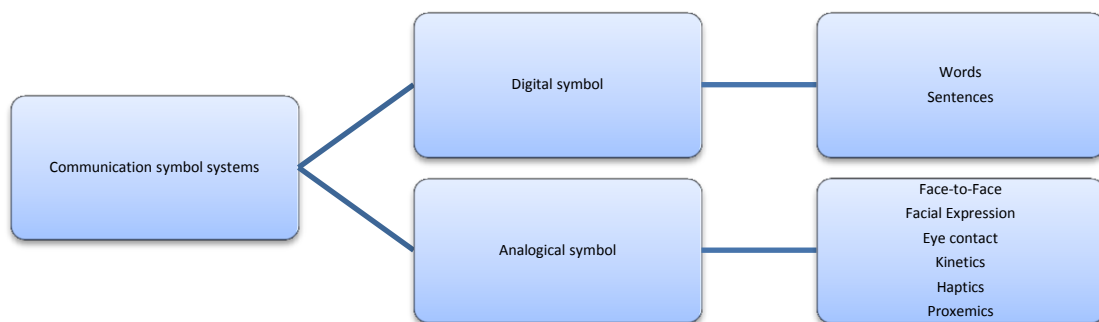
Social media plays an important role in online networking which is essential for the next generation of interactions. However, when it comes to connecting, text messaging is a preferred method of users. That is one of the results of a new Pew Report. Based on the results of the US Comprehensive Survey, texting is the dominant choice among daily conversations. Especially Snapchat, Facebook Messenger and WhatsApp-is always one of the lists for most downloaded apps. According to the Pew Research Center, 55% of people use text messaging and 28% use instant messaging for the closest daily connection. Social networks have become the most popular platform for meeting new friends online. Based on this report, 64% of people said that they use social networks (Facebook and Instagram) to make new friends. This report reflects the trend towards more personal links via text message (Hutchinson, 2015).

4.6 Replacement of Culture of Communication

There is no doubt about the fact that the ubiquity of ICTs have changed the way people, groups, and societies think, feel, and communicate. Solomon and Theiss (2013) stated that communication (language) such as traditions, fashion of clothes, etiquette that is related to folk culture is referred to as language. Which are the cultural values and norms of the characteristics of a language?

New and change pattern of communication brings new cultural development. For example, Cate & Lloyd, (1992) describes the change norms of romance within American culture and the adaption of language. In its norms, 'courting' has referred to as spending time with a romantic partner in the twentieth century. In the 1920s, freely meeting with romantic partners to required interest and spend time and day with him/her, for this process 'dating' term was used. In the 1950s and 1960s, greater romantic freedom meant that people could associate with a number of mates rather than one; this process was called 'Date'. And in the current age availability of new technologies provide the platform of online messaging and texting to maintain and develop the relationships, this process denotes by the term 'talking to' these days. These all example shows how novel experience and cultural developments change and create new communication patterns (Solomon & Theiss, 2013).

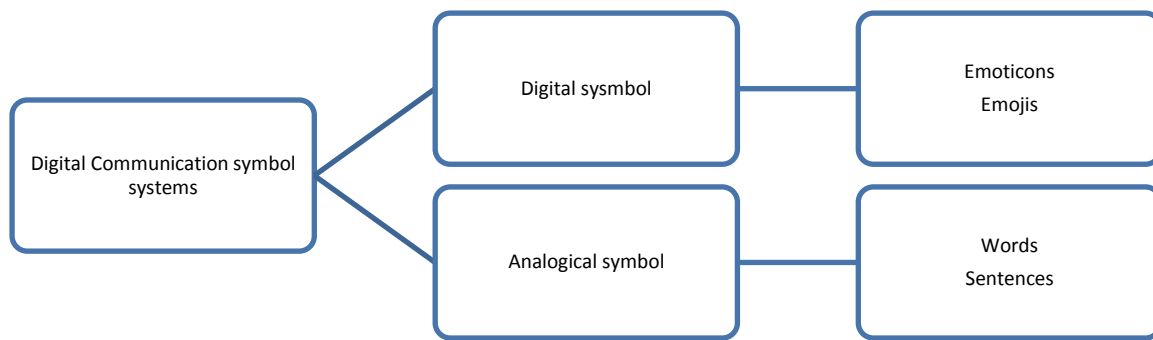
Culture has a significant influence on the methods of communication. The socio-economic situation of people has also changed during the changing times. These changes are reflected in the communication behavior of individuals. The way people speak and act is profoundly influenced by new experiences, beliefs, and culture. Culture plays a significant part in shaping the communication style. According to Solomon and theiss (2013) communication divided into digital symbols and analogical symbols system codes. The following figure describes the communication symbols systems:



Source: Solomon, D., & Theiss, J. (2013) *Interpersonal Communication: putting theory into practice*. New York, London: routledge.

Figure 4.2: Communication Symbol System

The figure above shows how communication symbols occur in conversations. Solomon and Theiss (2013) based on the communication symbols system, the digital symbol form of communication is taking place by words and sentences. Analogical forms take place in communication through face-to-face communication, facial expression, eyes contacts, Kinetics, Haptics, and Proxemics. Advancement of technology is changing the communication culture from time to time. Various technology-mediated new platforms and patterns provide new and innovative forms of interaction. Based on the above data, in the present era, now the advancement of technology has also changed the communication symbol system. Now communication symbol system changing in the digital communication symbols system. The following figure developed by the researcher for this study, followed by the above figure. Which shows that how communication techniques change time to time and communication symbols systems has converted into digital communication symbols system:



Source: self-created

Figure 4.3: Digital communication symbol systems

The above figure shows the changing culture of Communication compared to Solomon and theiss (2013). Here digital symbols take place for Communication by emoticons and emojis and in analogical symbols take place by words and sentences. The development of technology changed communication patterns and forms with their advancement.

4.7 Effects of ICTs and Individuals Behavior

Human behavior has changed as the Internet and social media have increased. People get so busy in the virtual world of their smartphones or gadgets that they forget the reality and understand it as real. The more people depend on technology, especially on social networking sites, the more human behavior changes. The majority of people use the Internet today. Social networks and the Internet has become a popular hub for connecting and communicating with the world. In addition, it cannot be denied that it has completely changed the behavior of individuals. The following behavioural change has been seen in individuals:

4.7.1 Depression

Some experts consider that the rise in depression is proof that social media users are less electronically satisfied and socially isolated. Studies have identified a connection between social media and depression. Two studies with over 700 students showed that the quality of Online Interactions is linked with depressive symptoms such as low mood and sensations of insignificance and hopelessness. In the case of people who have reported negative interactions, researchers have found signs of high depressive disorder.

Sleep deprivation that can be caused or exacerbated by social media is one of the most common contributors to depression in teenagers. Research has shown that 60 percent of teenagers watch their phones in the last hour of sleep, and on average, sleep less than their counterparts who do not use their phones before bed. Blue light from

electronic screens interferes with falling asleep, but it is not always a relaxing or sleeping activity to monitor the social media. Social media has a profound effect on sleep. For five minutes, people plan to check Facebook or Instagram, and how the 50 minutes pass is not known. Because of its heavy used, People are sleepy for an hour, and the next day they are more tired than that.

4.7.2 Social isolation

Excessive use of the Internet and social media creates a behavior of isolation among users. Multiple studies have shown that people can feel socially isolate twice as much if they spend more than two hours a day on social networks. The University of Pittsburgh conducted the study, and researchers asked about the use of the 11 most popular social network sites for 1787 adults between 19 and 32 years old. However, people who visit social networks more than 58 times a week have three times the chance to be alone than people who use the sites less than nine times a week.

Young adults who felt socially isolated at first may turn to social media. On the other hand, their increased use of social networks could lead to a sense of isolation from the real world. The structure of social isolation includes objective social isolation, lack of social ties as well as subjective social isolation. These facets are not the same but relate to social isolation: One can be objectively isolated, but do not feel lonely and can be connected with others objectively but still feel lonely (Holt-Lunstad, et al. 2015). If a youth logs into social media and sees that their friends are doing anything without them, it can also increase feelings like jealousy or envy. This became the reason for isolation.

4.7.3 Self-esteem

Self-esteem refers to a positive or negative self-appraisal that is to say, how valuable and competent an individual regards himself (Coopersmith, 1967). Self-esteem is the emotional evaluative aspect of the self-image (Heatherton & Wyland, 2003). Social networking sites like Facebook, Instagram, and Twitter are known to affect the self-esteem of users. Self-esteem is defined as an entirely subjective assessment of an individual's emotional value. It is both a self-judgment and an attitude toward oneself.

Internet and social media in recent years have become more popular and omnipresent. Users may create their own electronic profiles, provide their life and experience details, post photos, maintain relationships, plan social events, meet new people, discuss other people's lives, express beliefs, preferences, and emotions, as well

as meet the needs for belonging (Ivcevic & Ambady, 2012), which can also be used as a foundation for social comparisons, self-assessment or improvement (Haferkamp & Kramer, 2011). When comparing superior and inferior others with positive and negative characteristics, there are upward and downward social comparisons. However, social comparisons can make people feel negative and positive self-evaluations.

4.7.4 Phubbing

Phubbing is an act to snub someone in a social environment by watching your phone rather than paying attention. In other words, phubbing involves ignoring others through smartphones, whether by checking Facebook or using other chatting applications, during social events, and for hours (youtube, Phubbing: A Word is Born, 2013; Chasombat, 2014). Phubbing is seen throughout human activities every day, i.e., during social meetings with friends and family, meals, meetings, lecture, etc. Phubbers often disregard and ignore the importance of maintaining and developing connections through non-communication (Chasombat, 2014).

According to Pornopadol (2013), phubbing refers to the term to keep in touch and communicate all the time and fear of being mentally alone and to be the focus. By phubbing, the user checks whether Facebook or other smartphone apps are connected and it is being taken care of (Chasombat, 2014). But there are times when phubbers are escaping their smartphones from the social group to avoid disturbance in the crowd, or so-called awkward silence, such as on the lift or by bus alone, and they get bored at a party. According to him, phubbing is like a contagious, due to which it can cause discomfort to others as well as it can also be buried at the same time (Pornopadol, 2013; Chasombat, 2014).

The Dictionary of Macquarie claimed that since 2007 phubbing behavior is around the world. However, none spoke of such malpractice because there was no one to describe it (youtube, Phubbing: A Word is Born, 2013; Chasombat, 2014). In May 2012, several lexologists (phoneticians, crucivarists, and authors) and poets were invited to find a word that described the behavior of ignoring others using your phone in your dictionary and McCain Melbourne (Chasombat, 2014).

4.7.5 FOMO (Fear of Missing out)

FOMO is kind of internet and social media addiction. Oxford English Dictionary described as "*Anxiety that an exciting or interesting event may currently be happening elsewhere, often aroused by posts seen on social media.*" FOMO could be related to psychological needs satisfaction situational or long-term deficits (Anderson,

2011). It is known as a desire to be continuously linked to what others do. The use of social media for Information and for connectivity to others, according to uses and the theory of gratifications, are increasing in social media use. As long as people are in touch or able to receive Information continuously, it is normal, but when Information and other demands are not met, then anxiety is formed. In addition, FOMO is defined as a savagery of regret, which can lead to an obsessive concern that socialization is lacking. *“Due to FOMO, people start to doubt this and start imagining how anything can happen next”* (Wortham, 2011).

FOMO is based on Self- determination theory. That is based on the notion that emotional attachment and relationship with each other is a legitimate psychological need that affects people's psychological health. According to this, the psychological satisfaction of a person consists of his three basic psychological needs, such as his ability, autonomy, and relatedness (Deci, & Ryan, 1985). FOMO can be understood within this theoretical framework as a self-regulatory state derived from the perception of situational or long-term lack of satisfaction (Przybylski, 2013). Individuals with low basic psychological satisfaction have a high FOMO level; in other words, the relationship between basic psychological satisfaction and FOMO is significant (Deci, & Ryan, 1985).

With the development of the Internet, the dependence of people on mediation communication has increased. Online psychology can lead to anxiety when you feel disconnected, and therefore to fear that you will be unable to use the Internet or even pathologically (Song, et al. 2004). FOMO is, therefore, perceived to influence the psychological health and well-being of people negatively because it contributes to the negative mood of people and their stressed feelings (Wortham, 2011). FOMO has been found to be negative with age, and men are more likely to report FOMO than women.

Fear of missing out is a consequence of new and growing social media addiction. In 1996, Dr. Dan Herman, a marketing strategist, first identified this phenomenon, and in 2000, he researched Adam Bellouch and published the first academic paper on the subject in The Journal of brand management (Herman, 2000). In 2004, when Author Patrick J. McGinnis published an op-ed in Harvard Business School Magazine, The Harbus, then he coined the term FOMO and popularized it.

4.7.6 Cyberbullying

The use of ICTs to support deliberate, repeated, and harmful behavior by an individual or group to harm others involves cyberbullying. Due to the anonymity that

the Internet can provide, cyberbullying is different from traditional bullying. Because Cyberbullies are not allowed to act anonymously, cyberbullying is often beyond the legal reach of schools and school boards because it happens many times outside of school (Belsey, 2004). It is basically the transmission or posting using the Internet or other digital communication devices to harmful or cruel texts or images. According to Willard (2006), the following are various forms of cyberbullying:

- i) **Flaming:** Sending angry, rude, obscene messages private or online to someone or individuals
- ii) **Harassment:** Send offensive messages repeatedly to a person.
- iii) **Cyberstalking:** harassment involving is highly intimidating threats of harm.
- iv) **Denigration (put-downs):** Sending or posting to another person harmful, false, or cruel statement.
- v) **Masquerade:** To claim to be someone else and to send or post material that makes him or her look bad or puts him in potential danger.
- vi) **Outing and Trickery:** Sending or posting material on an individual who contains sensitive, personal, or embarrassing Information, including personal messages or pictures.
- vii) **Exclusion:** Actions that specifically and deliberately exclude someone from an online group, for example, the exclusion from a messaging buddies list.

Cyberbullying material can be published on websites of personal use, blogs, and websites of third parties. This type of message is transmitted via e-mail, chat groups, instant messaging, news, and text or mobile devices. The Pew Internet and the 2006 American Life Project Report show that one in three adolescents have been harassed online. It was also found that personal information, including e-mail, text messages, and images, is the most commonly used form of cyberbullying (Lenhart, 2007).

Cyberbullying is more likely to go unreported to parents and administrators than other types of bullying. This is because victims feel they needed to be able to deal with it themselves; and fear that if they tell their parents, then their privileges will be reduced or removed. According to a study by Juvonen & Gross (2008), 90 percent of respondents reported that adults did not report incidents of cyber attack due to such reasons. Cyberbullying victims may have faced pressure, low self-esteem, and anxiety. Extreme effects such as suicide and violence have also been found in cyberbullying victims (Lenhart, 2007).

4.7.7 Social Anxiety

The fear of social situations, which involve interaction with other individuals, is social anxiety. Social anxiety is fear and anxiety that is based on a negative evaluation of the person by others. Among many factors that contribute to Internet dependency, anxiety and loneliness are two main factors, and Internet dependency increases the anxiety and loneliness of addicts. The researchers have found that the social anxiety of adolescents is closely linked to internet dependence. People with social anxiety saw themselves as inadequate online and offline relationships. In addition, results indicated a sense of control in online and offline interactions of people with social anxiety. In other words, social anxiety linked to high expectations of face-to-face communication threat leads directly to the problem of internet use.

Social anxiety is specifically associated with a lack of confidence in presentational skills and a desire to make others feel positive. Social anxiety is related to greater quality of life and greater depression in people with frequent online Communication. The use of the internet and social networking sites as an alternative to personal Communication can be associated with social fear, which may lead to poorer well-being. Internet addiction, on the other hand, makes people more introverted, rejects family and friends, and promotes social anxiety. Internet dependence increases fear and anxiety about negative social assessments and delayed interaction. The relationship can be two-way. Those who are socially distressed may turn to the Internet since it is easier to use; On the other hand, however, excessively using the Internet in people who already suffer from it exacerbate social isolation.

4.7.8 Substance abuse

Substance abuse disorder is a disease of mental health often related to online dependence. Substance abuse can just be defined as a pattern of harmful use of any substance for the purposes of mood change. Alcohol and other drugs (internet addiction, online gambling, gambling) and certain substances which are not drugs can include substances. Abuse may occur because you use a substance, or because you use more than is prescribed in a manner unwanted or recommended. One of the most striking results was perhaps that young people who have internet dependence are likely to use drugs more frequently. The likelihood of developing a drug abuse disorder worsens as internet addiction worsens. The use of the Internet and substance can isolate people and harm many parts of their lives from their loved ones. Internet addiction

studies and brain studies reflected that substance abuse is like drug-related brain effects.

After the Internet is shut down, compulsive Internet users face turmoil, depression, fear and mood swings. There are few statistics on the use and coexistence of internet dependence, drug and alcohol may place an individual more at risk for developing internet dependence. Statistical data on internet addiction and substance use is limited; drug and alcohol use can increase the risk of an individual becoming internet dependent.

4.7.9 Nomophobia

Nomophobia is a modern phobia. Nomophobia is an unfounded fear that you have no mobile device or that you cannot use your mobile for any reason, such as the absence of a signal and minutes of battery power. It is an anxiety-like absence of signal and last minutes of battery power. Nomophobia word is a portmanteau consisting of "no+ mobile + phone + phobia"(TechTarget). 'YouGov' has founded the term, which is a UK based research agency. In a 2008 survey, 53 percent of smartphone users were worried about not having to use their cell phones and more than half of users did not turn off their phones. A study carried out in 2017, which included 145 first-year medical students of India; found that 17.9% of participants had moderate nomophobia (Legg & Raypole, 2019).

Following are the symptoms of nomophobia, which could lead to behavior change:

- i) When you feel that you do not have your phone or cannot use it, anxiety, fear, or panic may begin.
- ii) anxiety and restlessness if you decide to put down the phone or if you think you cannot use it for a while
- iii) If you are not getting your phone soon, be nervous
- iv) irritation and tension if a phone cannot be checked
- v) Enhanced sweat
- vi) Faintness, dizziness or disorientation
- vii) Tremble or shake

4.8 Basic facts that influence Individual Behaviors

The term Internet addiction covers a wide range of behavioral change, including issues relating to the Internet, personal computers, and mobile technology. Although no official criteria for diagnosing Internet dependency are still accepted (addictioncenter,

2019), researchers have identified five facts of behavioral change because of computer and internet dependency types:

4.8.1 Net Compulsions

Online interactive activities such as online gaming, trading stocks, online auctions, compulsory online shopping are all compulsory compulsions. These habits can have a harmful impact on the financial stability of you and disrupt jobs. Excessive spending or loss also creates tension in relationships. This creates depression in individuals and is a reason for behavioral change.

4.8.2 Online Relationship

Online or cyber relationship addicts are strongly involved in online relations, often overlooking and neglecting the family and friends of real life. In messaging or different social networking websites, online relationships are usually developed, and people can interact from anywhere. A person may be left with limited social competencies and unrealistic expectations of individual interactions after being consumed by an online social life and person. This often causes links to the real world not to be made and makes them cyber dependent. Typically, advice or therapy is needed to treat this dependence and to ensure lasting behavioral changes.

4.8.3 Searching for compulsive Information

The Internet offers a wealth of information and knowledge to users. For some, it is a relentless urge to collect and organize data to find information so easily. In some cases, the search for Information is a manifestation of existing, obsessive-compulsive trends. In general, compulsive searching for Information can also reduce productivity and lead to the abolition of work. The treatment options can vary from several methods of therapy, depending on the severity of the addiction, which are aimed at changing compulsive behavior and developing drug coping strategies.

4.8.4 Gaming Addiction

Computer dependence, sometimes called gaming addiction, involves activities both on-and offline with a computer. With computers more widely available, the software has included games like Solitaire, Tetris and Minesweeper. Research quickly found that obsessive playing of computer games in certain settings has become a problem. Office workers spend too much time playing these games, which would lead to a significant reduction in productivity. These classic games are not only still

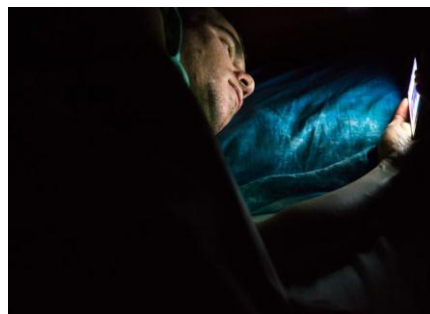
available today, but there are also thousands of new ones. Internet/ computer addiction is the oldest type and still prevalent today and harmful to people.

4.8.5 Addiction to Cybersex

One of the most self-explaining internet addictions is cybersex addiction. It includes online pornography, websites for adults, sexual fantasy and adult chat rooms and XXX services such as webcams. An obsession with any of these services may harm our capacity to form sexual, romantic or intimate relationships in the real world. For those with cybersex addictions, treatment alternatives are available, typically in the form of intervention followed by continuous treatment in hospital and ambulatory treatment.

4.8.6 Sleeping Disorder

Internet and social media is a reason for trouble sleeping and concentrating. Other research has found that artificial light such as blue light, smartphones, and laptop screens have inhabited the body production of the hormone melatonin, and link with sleep disturbances (Choudhury et al., 2013; Gooley et al., 2011).



Source: <https://www.bbc.com/future/article/20180104>

Figure 4.4: Internet, Social media and Sleeping Disorder

4.9 General effects of ICTs on Individuals Behaviors and Society

The following are the general effects made by the internet and social networking sites (ICTs) on individuals and society:

- i) Many people became famous in social media. This encourages many others to become famous people. Some of them become self-obsessed and narcissistic.
- ii) For many social media, violent behavior is also encouraged. Individuals could not threaten anyone freely until the internet era. However, now, by hiding their identity, anyone could easily harass and threaten others.
- iii) Social media gave people from different cultures and regions access to different views and thoughts. It has the ability to make people broad-minded, to challenge stereotyped views of specific populations, and to promote mutual respect among people.

-
- iv) Social media helps to expand knowledge of people.
 - v) Most content creators of social media encourage people to pursue their loved careers, to care for themselves and to learn new skills, etc. it has a positive effect on people's conduct.
 - vi) The Internet and Social media enriched democracy and equity by making it possible for everyone to send their content to a broader public.
 - vii) Social Communication gives voice to vulnerable groups and minorities. For instance, increasing numbers of women express their opinions through social media, which are not encouraged to speak up because of cultural standards.
 - viii) A second example is a fact that people with different skills share content to encourage people with the same problems and to communicate their ideas to society and government.
 - ix) People work together for the better by Tweeting with hashtags, which forces governments to perform their duties. Social media is involved in social improvement. In the Arab Spring, for instance, social media played a major role.
 - x) Cyberbullying, menaces, and trolling are the major problem facing social media content creators. People who are used to online harassment tend to develop more conduct that is violent.
 - xi) Some people, in particular adolescents, suffer anxiety and depression when faced with cyberbullying.
 - xii) Some young people suffer from a low level of self-appreciation because many people display their talents via social media and they do not have the same skills as.
 - xiii) Social media have the power to rage individuals and communities. This anger leads to real life.
 - xiv) There is a lot about make-up and beauty products on social media. On YouTube, there are so many maquillage channels. People promote products to improve external appearance with high-quality videos and images. This leads to beauty being too important for people, particularly girls.
 - xv) Fake news causes people to panic. This, in turn, leads to hate and confrontations among the communities.
 - xvi) It also promotes scoffing and damages people's reputation.

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- xvii) The main reason for making content viral is social media. Not all-viral content, however, is reliable. There are a lot of fake news incidents that go viral. Recently, in many incidents, some people have been beaten by a mob. This happened because fake news was coming in their area related to the smugglers of children.
 - xviii) Mighty people use social media to impose on people their ideologies. Political parties, for example, are creating a lot of social media content now to affect and manipulate people's views of governments and political parties.
 - xix) The trolling of social media is one of the major adverse effects. The toll is also very common, politically motivated.
 - xx) Militant groups also use social media to influence and manipulate young people for membership in their groups.
 - xxi) Materialism is greatly promoted by social media.
 - xxii) Social media is used as a data-mining tool.

Social media has a strong effect on individuals and society. The students learn, connect, establish, and maintain relationships with social networking sites. However, the majority of people end up making comparisons with others upwards and downwards. The upward parallels envy people and their lifestyles and feel less responsible and ungrateful about their bounties as well.

4.10 Chapter Summary

The chapter focused on the role and effects of the ICTs in interpersonal communication, face-to-face communication and individuals' behaviours. The chapter explores the application and techniques of technology-mediated platforms for communication. In this chapter, the researcher has mentioned concepts of preference for technology-mediated communication patterns compared to face-to-face communication. Adhering to the displacement principle, it provides information about how new and attractive technology replaces the old. This chapter also gives information about the effects of technologies on a individual's behavior.

CHAPTER FIVE

Digital Non -Verbal Cues in Interpersonal Communication: An Overview on Forms, Frequency and Functions

5.1 Introduction

“Tone of voice, facial expressions, gestures — these are all vital elements of face-to-face communication, but they’re stripped away in writing. Emojis offers a way of compensating for this”.

Dr. Daria J. Kuss

This chapter examines the forms and functions of digital Non-verbal cues used by individuals on social networking sites and text messaging for interpersonal communication. In this chapter, the researcher has focused on the reasons for the use of non-verbal cues during text communication. The various functions and meanings of nonverbal cues are also described in detail. Besides, this chapter tries to find out whether the same non-verbal cues have the same meanings to the receiver and sender or not.

In the last few decades, with the development of technology-mediated communication, Non-verbal cues (emoticons) have been extensively used by the younger generation for their daily interactions. The youth use almost all channels of online communication such as e-mail, instant messaging, SMS, Facebook, Twitter, and many other digital platforms. The popularity of technology among users makes them special and attracts academic attention. The message means not only speech or information but also nonverbal indications such as facial expressions, tone of voice, and body language. Besides, in the same context, noise refers to something that distorts the message and context that distorts the meaning which the speaker intends to offer. In non-verbal contexts, noise can be seen as the use of insufficient body language, lack of non-verbal cues and cultural differences (Chasombat, 2014). This chapter focused on the frequency of emojis and emoticons in interpersonal communication. The researcher also focused on this chapter's different forms, functions, and design variations of emojis. In this chapter, the researcher has tried to find the meaning of emoticons, emojis and tried to understand whether the same emoji has the same meaning for the sender and receiver. Emojis is a new invention, which is a new form of emoticons. Emojis are largely neglected in Indian literature, and their use and functions have not been focused. This chapter proposes to fill these gaps by providing an understanding,

by examining interactions in interpersonal communication, of how emojis are used in actual online conversations. This chapter focuses on emojis to refer to a wide variety of digital facial expressions, posture, gestures etc., which is the key focus of the chapter.

5.1.1 Symbolism in Interpersonal Communication: An Overview

Symbolism is the utilization of composed symbols in communication. According to Whipps (2008), written symbols were developed many hundred-thousand years ago; humans discuss this. This was the first symbolic use of communication. For instance, the ancient Chinese wrote using characters symbolizing various objects, gestures, and behaviors in the form of hieroglyphs abstracted by the ancient Chinese. In the early phases of language invention, these hieroglyphs were popular (Whipps, 2008). The following figure shows the example of famous hieroglyphs:



Source: <https://www.vtmaq.vt.edu/sum16/question.html>

Figure 5.1: Example of popular hieroglyphs

A handwritten note was the most recognized way for individuals to transmit text before modern communication technology came into our regular daily life. In several earliest civilizations, it was absolutely wide ascertained that people were adapted to preserving and transmitting their memories and traditions to consequent generations via songs, storytelling, and social occasion festivals. With the evolution of civilization, individuals created many new methods to record and transmit information to others, such as carve into rocks, wood, or clay of meaningful symbols. Besides, others, like Babylonians, used clay bricks to record astronomical remarks. In addition, ancient Chinese utilized signal towers, horses, and flight birds for distance communication (Whipps, 2008).



Source: <https://egyptianstreets.com/2018/05/08/hieroglyphics>

Figure 5.2: Example of popular Egyptian hieroglyphs

Written communication is responsible for the natural growth of oral communication. However, a certain level of oral and/or gestural interaction is also present in several animal species, but written communication is only reserved for people and has a significant position in developing civilization and culture. Writing is thought to be invented in much distinct civilization separately (Gaur, 1992). However, both hieroglyphs of ancient Egyptian and ancient Chinese are not associated with each other. The Sumerians and Egyptians around 3500 to 3200 BC developed the earliest writing systems. However, it is not evident who invented it first (Gaur, 1992).

Due to civilization's requirements, complex and full writing systems were not created overnight or by a single person. Historians claimed that it was mainly needed to maintain agricultural documents and calendars that motivated the invention of writing systems (Whipps, 2008). The older samples were pictographs of inflows and outflows in the grain and animal shops in the town used by the temple's officers. When the level of ancient towns grew and commodity exchanges grew, then the need to keep records increased even more quickly. During that moment, individuals depicted the forms and quantities of products they had with various small clay tokens (Whipps, 2008).

In about 3500, B.C.E. there evolved far more interactive city economies. The spectrum of tokens thus extended quickly because of the kinds of commodities being traded. Commercials began to ship large quantities of products to customers from town to town by using caravans. However, caravan riders could easily steal products and tokens without the knowledge of traders. To avoid robbery, traders impressed on the outer side of the clay envelope the forms of the tokens when it was wet. Therefore, the envelope has folded and written into a tablet, and after that, the texts were born (Whipps, 2008).

The introduction of a standardized collection of writing symbols understood by people across a wide area was another significant development. In the first place, people from various regions used an intuitive set of symbols, for example, by drawing a goat for a goat. After that, standardized and more abstract symbols began to be used by officers. These symbols were scraped into soft clay tablets with a pointing shaft that was cut into a slice. The symbols were commonly used in Egypt and were called "cuneiforms," meaning wedges from the Latin "cuneus." The ancient communication system, after that, developed to include symbols to represent sound. According to Whipps (2008), the method was so common and simple to use that Mesopotamia started to model such conduct.

phonetic sounds of verbal skill are used to generate fresh words by symbols. For instance, it is very hard for a phrase like "Neilson" to write with pictures unless everyone knew what Neilson looked like. Rebus writing created it possible to write just about anything by have the reader relate to the ears and not the eyes. However, it was a difficult system because it required centuries of symbols for each of the syllabus used in a language. Around 700 symbols were employed by Mesopotamian and Egyptian hieroglyphs.



Source: Blatner, 2011

Figure 5.5: The Rebus Principle of text-based communication

D. Phonetic alphabet (c. 1000 B.C.E. to present): This process is because we can only create about twenty-five sounds, even if we can combine those sounds with hundreds of symbols. This procedure is based on the realism that we can produce only about 25 or so distinct sounds, but we can mix them into hundreds of symbols, each of them needing another rebus. The alphabet greatly simplifies the process with only one symbol per sound (Blatner, 2011). We offer credit to the Phoenicians for the alphabet in general (so the word 'Phonetics'); the Egyptians also seem to have had a kind of alphabet drawn on by the Phoenicians. By adding vowels that were lacked by the Egyptian and Phoenician systems, the Greeks completed the process. On the basis of these four steps, a contemporary language such as English is, in many respects, well developed and established. We can use it to convey knowledge well beyond what the old writers expected. However, the use of signs such as facial language and even animated gestures can greatly alter the language. It took hundreds of years for each stage, but the use of facial expressions is recently carried out in terms of text communication. Facial expression and emoticon already form a part of our everyday communication and its effect on our communication system should be investigated. (Blatner, 2011).

Since information can be maintained in other ways than human memory via oral tradition, symbolism and written communication changed interaction patterns. The inclusion of facial expression symbols in text-based communication is simple thanks to contemporary interaction techniques, such as text communication via smartphones and immediate messages applications on computers and internet. These expression (symbols) (😊👉🌞🌸) are so trendy that a Smartphone or communication application that does not help facial expressions and non-verbal cues (emojis) in text messages is difficult to discover.

5.1.2 Non-verbal Communication

To understand digital Non-verbal communication, firstly need to understand what is Non-verbal communication? What are the elements of Non-verbal communication? Language-independent communication is nonverbal communication, for which a message is transmitted to communicators using unconsciousness phrases rather than verbal expression. Unconsciousness expressions are referred to as non-verbal communication, for example, body language, gesture, voice, etc. (Park & Harada, 2003). Burgoon (1985) suggested some elements to sent messages in non-verbal communication, such as:

- i) Body motion: defined by a body-area motion such as the head, face, shoulder, hands or legs.
- ii) Voice factors: characterized as a voice without a language articulation, for example, voice tone, speed, quietness, etc
- iii) Cosmetic factors: described as a person's appearance like costumes, cosmetics etc
- iv) Factors of relation: identified as the contact between communicators like handshaking, embracing, kissing, etc
- v) Factors of geographical space: defined as the distance between communicators
- vi) Factors of time-space: identified as a moment of communication
- vii) Environmental factors: identified as an environment for interaction, including geographical space and time

5.1.3 Technology-Mediated Communication in context of Non-Verbal Communication

Technology-mediated communication is a method of human interaction via computers, with individuals involved in procedures to form media for a multitude of

reasons, located in specific situations. The word computer-mediated communication relates to computer communication, like both task-related and interpersonal. This involves communication to and through a personal or a mainframe computer. Asynchronous communication by e-mail or by electronic newsletter is usually known to be included; Synchronous, for example, "chatting" or group software use; and manipulation, retrieval or storage of data via computers and databases. Computer-Mediated Communication is becoming more common and gradually replacing the conventional areas of face-to-face communication (Park & Harada, 2003). In Technology-Mediated Communication, four main sections are as follows:

Table 5.1: Type of technology-mediated communication

TMC	Type	Objective	Style	Transmission of Message
E-mail (Electronic- mail)	Asynchronism	Exchange of Information	text	One – to - one and One – to - many
Electronic Bulletin board	Asynchronism	Exchange of Information	Text, Debate	One - to -many
Chatting	Synchronism	Social Interaction	Text	One – to – Server
MUD (Multi-User Dungeon/Dimension/Domain)	Synchronism	Social Interaction	Text, Graphics	One – to - Server

Source: <https://www.semanticscholar.org/paper/A-Study-of-Non-verbal-Expressions-in-a-context>

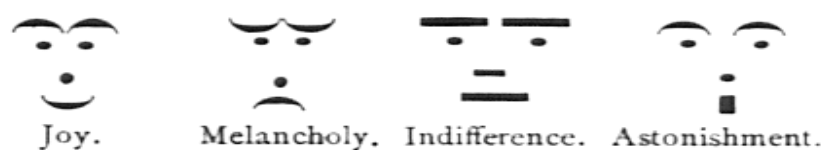
5.2 Background

According to Herring and Dainas (2017), digital non-verbal cues in communication technology means graphical icons, which include emoticons, emojis, GIFs, images, etc. Emoticons and Emojis are popular digital pictograms that appear on social networking sites and text messages. Apart from facial expressions, Emojis are lively and colorful images representing a number of characters around us. Emoticons, made up of ASCII (American Standard Code for Interchange of Information) characteristics to represent facial expressions, are more varied and complex than their previous characters. In recent decades, and with the advent of numerous computer-mediated communication modes, emoticons and emojis have been widely used in their everyday online interactions, mainly by young generations. They are using almost every online channel for interaction, such as Facebook, Twitter, texting, blogs, instant messages (IM), texting, emails, instant messages (IM), and several other digital platforms. This chapter introduced the berth and development of emoticons and emojis. This chapter also aims to identify the different forms, functions, and use of emojis for digital interaction.

5.2.1 Emoticons (:-) first smile face symbol: in context of emoticons)

The emoticons short for "Emotion Icon", also known as Emote, is an image of a facial expression using characters. It is like punctuation marks, numbers, and letters, which are typically used to express a person's feelings or mood and is used as a timesaving process. Between the late 1960s and the early 1990s, when the internet was completely text-based, emoticons were created in ASCII, which was shown by "Smiley" :-). In 1982, Scott Fahlman had written the first ASCII emoticons, ':-)' and ':-('. However, in TMC interaction, the quantity of emoticons used is always small. Most emoticons consist of two characters or more.

The use of emoticons can be traced back to 1635, prepared by a notary from Slovakia to express his disappointment with the state of his city's municipal financial records in 1635. However, they are widely used in casual and witty prose were used. After that, it can be traced back to the 19th century. When The U.S. satirical magazine Puck published the following characters in 1881 for use in print publications, which was the prominent example of the use of it (Kumari & Gangwar 2018).



Source: Kumari & Gangwar (2018).

Figure 5.6: Example of use of emoticons characters in 1881

Scott Fahlman was one of those who used emoticons. Fahlman used emotional sentiments ':-)' (smile symbol) and symbol ':-(' (sad symbol) with special suggestions. On 19 September 1982 (11:44), Fahlman proposed the original proposal with emoticons and presented it to the Computer Scientist General Board of Carnegie Meston University. That was like that:

```
19-Sep-82 11:44 Scott E Fahlman      :-)
From: Scott E Fahlman <Fahlman at Cmu-20c>
I propose that the following character sequence for joke markers:
:-)
Read it sideways.  Actually, it is probably more economical to mark
things that are NOT jokes, given current trends.  For this, use
:-(
```

Source: Kumari & Gangwar (2018).

Figure 5.7: Example of e-mail with emoticons symbols

Emoticons are not properly the same as emojis. The fundamental emoticons were, over time, adapted to a range of emotions, and people began to produce various symbols to represent ideas and feelings. At least two characters make up most of the emoticons. Some examples of emoticons and their meaning are shown in the following table:

Table 5.2: Examples of text-based Emoticons frequently used and meanings

Symbols	Meaning	Symbols	Meaning
:)	Smile	:P	Sticking tongue out (raspberry)
:~)	Smile with nose	:-O	Surprised
:-E	Buck-tooth or vampire	:-*	Kissing
>-)	Evil Grin	:-@	Angry
:(	Sad or frown smile	:-\$	Confused
:-(:-<	Sad with nose Super sad	:-\	Shifty
((H))	Hugs	:-#	Don't tell/secret
:-X	Kiss on the lips	-O	Yawning
`:-)	One eyebrow raised	:@)	Pig smile
:^)	A broken nose	<(-_-)>	Robot
:-&	Tongue tied	d[-_-]b	Dj with headphones
E:-)	A hum radio operator	~:0	Baby
<:-)	Uni- brow	-@--@-	Eyeglasses
:->	Big grin happy	\VVV/	King
(-}{-)	Couple Kissing	\%%%/	Queen
:-Q	Smoking	:-#	With braces
\$_\$	Greedy	:')	Happy crying
@@	Rolling your eyes	{:-)	Toupee smile
:-!	Foot in mouth	;)	Winking smile
:-D	Laughter	;~)	Winking smile with nose
:*)	Drunk smile	O:-)	I'm an angel(boy)
:@	Exclamation "what???"	O*-)	I'm an angel(girl)
:-@	Scream	-O	Yawn
:-0	Yell	(:-D	Gossip, blabbermouth
:-----)	Long nose(Liar!)	@>--;--	Rose
%-(	Confused	@-}---	Rose
:-.)	Madonna	=^.^=	Cat
:-(\$)	Put your money where your mouth is	O.o	Confused
(:I	An egghead	_/)	Bunny
		(o.o)	
		(__)0	
		~(8^(I	Homer Simpson

Source: webopedia

5.2.2 Emoticons in Technology-Mediated Discourse

In the last two decades, emoticons have been the subject of multiple studies in different fields of Computer-mediated discourse (Kumari & Gangwar 2018). They used to be present in almost all computer-mediated communication text modes. Danet & Herring (2007) regard emoticons as a feature shared across modes and recurring in languages other than English. In computer-mediated communication, emoticons are regarded as characteristic of language usage. Many academics see the lack of paralinguistic and linguistic signals in computer-mediated expression as the main

reason leading to the development of emoticons (Crystal 2002: Kumari & Gangwar 2018). In other words, emoticons have been seen as substitutes for nonverbal indications and facial gestures available in face-to-face interaction in computer-mediated discourse (Kumari & Gangwar 2018).

The CMC program currently automatically transforms ASCII symbols for example ‘:)’ and ‘:(’ into graphical symbols ‘😊’, ‘😞’. Emoticons have developed a number of graphic forms and meanings over the last three decades, and an increased number of signs have been developed to make all sorts of black and white objects, including a star (☆) (Kumari & Gangwar 2018). Another cultures like the Japanese, have created their own variants of emoticons or smileys like (^ ^) and (^o^), for example. Katsuno & Yano (2007), as “Japanese Kaomoji or Japanese emoticons,” refer to this variant of the emoticons. (Al Rashdi, 2015). The distinction between Western and Japanese emoticons is that the former is read from top to bottom or front to back and left to the right side (Katsuno & Yano, 2007).

While the smiley from Fahlman was original ‘:-)’ and frowny ‘:-(’ was constructed as "signs of humor" for helping readers to interpret previous posts and thus avoid potential confusion correctly, many scholars of computer-mediated discourse later saw them as emotional indicators. In reality, the term "emoticon," a combination of the terms "emotion" and "icon," represents how those symbols are conceived as non-verbal markers of emotional states. Most examples of emoticons in CMC literature, therefore, underline this view. However, this perspective is illustrated by most definitions of emoticons in Computer-Mediated Communication literature (Danet & Herring, 2007). For example, Rezabek & Cochenour (1998) define emoticons as visual signs created from ordinary typographic symbols representing feelings or emotions when reading sideways.

Wolf (2000) defines that emoticon “*exemplify a minimalist approach to ASCII art and attempt, in as few characters as possible, to display one’s true feeling*” (Wolf, 2000, p.828). Baron (2000), even in the field of linguistics identified emoticons as “*emotion markers*” (Baron, 2000, p. 242).

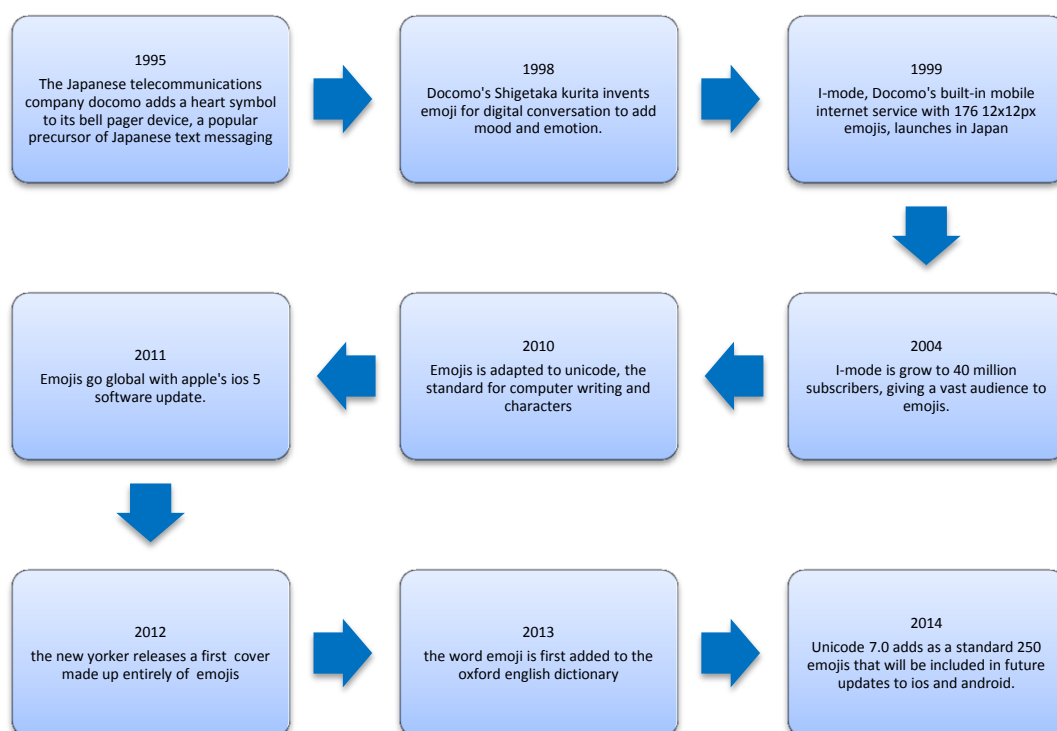
5.2.3 Emojis 🙌👩👧👦💖🐼👹

According to Lebduska (2014), emojis are “picture characters.” It is a type of ideogram and smileys used for digital interpersonal communication (TMC) on smartphones and internet web pages. It is a modern and upgraded version of emoticons

means actual picture instead of typographic. Basically, it is a small digital image or symbol used to convey an idea or feeling in digital communication (Lebduska, 2014).

According to Blagdon (2013), Shigeta Kurita introduced emojis for the first time in Japan via the DoCoMo mobile phone network i-mode. In 1998, emojis' father Shigetaka Kurita created 176 first emojis and gave users a new way to communicate through the image (Al Rashdi, 2015). Emojis became very popular in Japan when many mobile firms installed it on their mobile devices. After that, it spread to other countries around the world (Garun, 2015). The pattern was gone up sharply following the introduction of emojis keyboards on iOS and Android in 2011 and 2013, respectively.

The following steps involved in the invention process of emojis:



Source: self-created

Figure 5.8: Steps of the invention process of Emojis

A recent study done by Thomas Dimson, who developed Instagram's hyperlaps application, concluded that in some countries such as Finland and France, 50 percent of comments and captions are contained through emojis (Dimson, 2015).

Emojis are standard computer codes that can be transmitted between computers and mobile devices. It is identified by predefined images that users can view on their devices. Emojis' widespread use and popularity have led some analysts to equate emojis with a new symbolic language. There is also Emojipedia as part of an online information site, which tracks the history of emojis symbols, their nature, and their

meanings. In 2014, Jeremy Burge, Emojipedia's founder, created World Emojis Day. World Emojis Day is marked by a 'global celebration' on 17 July, when people are encouraged to use emojis on social networking sites.

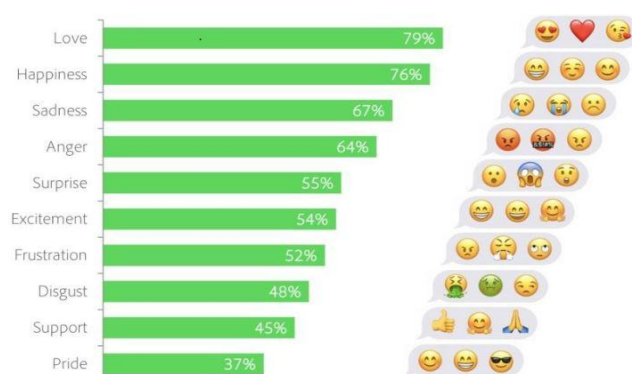
5.3 Non-verbal Cues (Emojis) in Interpersonal Communication: Current Scenario

Every day, hundreds of millions of people communicate with emojis, whether they are sender, receivers, or both (Hannah Miller, 2018). In 2015 the word “face with tears of joy” () had chosen word of the year based on the ubiquity of emojis. In 2014, Jeremy Burge, Emojipedia's founder, created World Emojis Day. World Emojis Day is marked by a 'global celebration' on 17 July, when people are encouraged to use emojis on social networking sites.

The silicon valley-based organization monitors the habit of emojis use of big tech companies, universities, and government agencies. Based on this survey Unicode consortium reported in October 2019 “  ” (emoji of face with tears of joy) is the first most frequently used, “  ” (red heart) is second and, “  ” (smiling face with heart-eyes) is third frequently used emoji respectively. Unicode survey on echoes found that out of 2,822 emojis, “  ” (face with tears of joy) ahead all of them. It () also chose by Oxford Dictionaries in 2015 “word” of the year. The pictograph introduced in 2010 and used to underscore a joke, acknowledge a funny comment emphasizes a joke, recognizes a funny comment or lightens a sarcastic remark.  (rolling-on-the-floor emoji) emoji came in fourth place, which is used to convey extreme hilarity far greater than any other smiley emoji that is available.

Computer-mediated communication cognitive psychologist Monica Riordan stated that mostly, people try to encode an extremely complex set of emotional and social issues into a small graph; and expect the other person to interpret the emojis they want to communicate correctly. She said many studies show that 55% of human interaction happened through body language such as gestures, posture, and facial expression. Only 38 percent is communicated by the sound and phonation of the voice. According to her, on a larger scale, emojis are “relationship maintenance tools.” It is used to express emotions that the other person wants us to convey. Through this, people are able to convey laugh, sad, cry etc., moments that time also when they are actually in real life not laughing, sad (), crying (), etc.

The following figure shows an example of emotion associated with the emojis and frequently used by the users for interpersonal communication:



Source: <https://www.macrumors.com/2019/07/17/adobe-2019-emoji-study/>

Figure 5.9: Emotion associated with Emojis

On the occasion of world emojis, day adobe released their 2019 emojis trend report, the report based on a thousand emojis users of the united states. The report revealed that 93 percent of emojis users said that they used emojis because it lightens the mood of a conversation and 91 percent said that use of emojis during the conversation to show support to people. Nineteen percent of emojis users stated that emojis could communicate as the language, so they overcome language barriers. It also has the ability to share thoughts and ideas instantly. Eighty-one percent of the user said to communicate with emojis are friendlier and more approachable. Sixty-five percent of users said it is a comfortable way to express our emotions rather than phone calls. Sixty-three percent said they used emojis at the workplace also because it affects credibility. In the context of information, 74 percent-said emojis convey positive news more sincerely (Clover, 2019).

The Yawning Face and the Pinching Hand are two notorious new emojis introduced in 2019 by active nine vendors.



Source: <https://blog.emojipedia.org/emoji-updates-in-2019/>

Figure 5.10: Example of yawning face and Pinching Hand emojis

In 2018-2019, 25 emojis were released by nine different active emojis vendors and added to emojipedia. Additionally, the first major emojis update of the year from

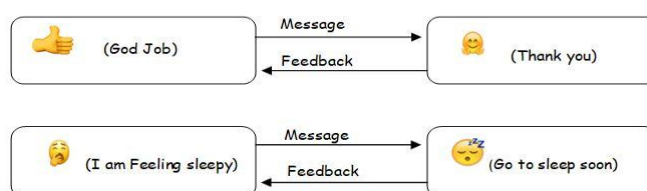
Unicode, Emojis 12.0, was released until March 2019. Two hundred thirty new emojis were included in September 2019, which included different skin tones emojis. The following figure shows the 25 categories and 230 designs (including different skin color, dress color, etc.) of newly added emojis:



Source: <https://blog.emojipedia.org/emoji-updates-in-2019/>

Figure 5.11: Example of new emojis added with emojiipedia

The process of digital non-verbal communication is the same as other communication, there is a difference in their patterns only; means this done by the emoticons and emojis. The following figure shows the process of digital non-verbal cues based communication:



Source: Self-created

Figure 5.12: Suggestive process of Digital Non-verbal Communication

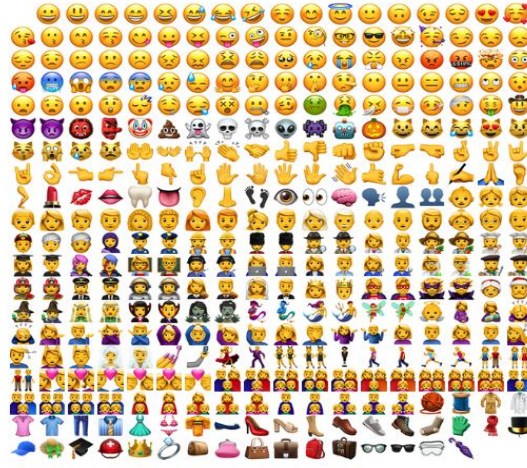
The figure shows that Emojis can reinforce the meaning and clarify the emotion. By knowing each other's feelings, the process of communication works well. The effective utilization of emojis to improve communication, upgrade social presence, and assemble community is an advanced competency, one part of an individual's digital proficiency. Thus, efficient use of emoticons can improve the capacity of a person to use electronic communications correctly and adequately. Some studies found that there is a tension in both our literature and private experiences between the utilities of emoticons and certain people's views of emoticons as unprofessional (Hasan, 2018).

5.4 Categorization of Emojis for Communication

According to emojiipedia emojis divided into various categories such as Smileys & People, Animals and Nature, food and drink, Activity, Travel and Places, objects, symbols, and Flags.

- **Smileys & People**

The first category of emojis comes in Smileys and People. This category includes smiley, people, family, hand gestures, clothing and accessories. The following figure shows an example of this:



Source <http s://www.emoji.com/browse/emoji/category>

Figure 5.13: Emojis comes under the category of Smileys and People

- **Animals and Nature**

In this category includes emojis of animals, nature, and weather. The following figure shows the some example of this:



Source: <https://www.emoji.com/browse/emoji/category>

Figure 5.14: Emojis comes under the category of Animals and Nature

- **Food and drink**

This category includes emojis of fruit, vegetables, meals, beverages, and utensils. The following figure shows some examples of this:



Source: <https://www.emoji.com/browse/emoji/category>

Figure 5.15: Emojis comes under the category of Food and Drink

- **Activity**

This category includes emojis of sports, music, the arts, hobbies, and other activities. The following figure shows some examples of this:



Source: <https://www.emoji.com/browse/emoji/category>

Figure 5.16: Emojis comes under the category of Activity

- **Travel and Places**

This category includes emojis of varied scenes, locations, buildings and modes of transport. The following figure shows some examples of this:



Source: <https://www.emoji.com/browse/emoji/category>

Figure 5.17: Emojis comes under the category of Travel and Places

- **Objects**

This category includes emojis of household items, celebrations, stationery, and miscellaneous objects. The following figure shows some examples of this:

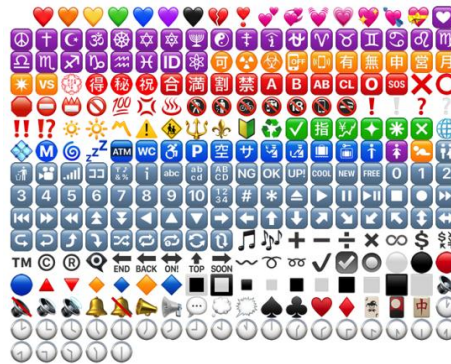


Source: <https://www.emoji.com/browse/emoji/category>

Figure 5.18: Emojis comes under the category of Objects

- **Symbols**

This category includes emojis of Heart, clocks, arrows, signs, and shapes. The following figure shows some examples of this:



Source: <https://www.emoji.com/browse/emoji/category>

Figure 5.19: Emojis comes under the category of Symbols

▪ Flags

This category includes emojis of the country flag. The following figure shows some examples of this:



Source: <https://www.emoji.com/browse/emoji/category>

Figure 5.20: Emojis comes under the category of flags

5.5 Different Forms and Functions of Emojis

According to Hass (2011) and Ling (2007), emoticons are common in computer-mediated expression, but some studies have indicated that emoticons are relatively low in frequency. For example, Ling and Baron (2007) noticed that there were only two emoticons in their 1473 text messaging and only five emoticons in their 1146-word instant messages. In comparison, emojis were more frequently used in interpersonal communication among friends, family, and others. According to emojiopedia reports currently (2019), there are total numbers of 3,178 emojis in the Unicode standard. It includes various categorize of emojis, that already discussed by the researcher. The types and functions of emojis are also based on their various categories, such as 1) smiley and people; 2) Animals and Nature; 3) eating and drinking; 4) activity; 5) travel and location; 6) objects; 7) symbol; 8) flags.

The category of smiley and people includes emojis representing smileys, facial expression, person, heart, hand, and body gestures, and postures. The categories of Animal and nature includes emojis of different animals, flower, water, plant, tree etc. the food and drink categories include emojis of different fruit, vegetables, food, and drink. The categories of activity represent the different play products, a person with run, swim, bots, and much more activity. The travel and place emojis of categories include cars, bus, house, truck, mountains, vehicles, sunrises, sunsets, city, states etc.

The category of objects includes emojis of all kinds of inanimate items, for example, lights, bed, bath, money, TVs, VCRs, weapons and scissors. The categories of symbols include emojis of playing cards, hearts, international symbols, a hundred points & up, squared emojis, arrows, religious, symbols, and speaking bubbles. The last category of flags includes emojis of different country code flags. Many emojis share the same prominent feature and have been used to perform the same functions interchangeably. For example 🤪 (face with stuck-out tongue), 😜 (face with stuck-out tongue and closed eyes), 🙄 (face with stuck-out tongue and winking eye) They are all grouped together because they all have a stuck-out tongue and they are all used to the same function and task.

For this study, the researcher has focused on some emojis of different categories, which have similarities in function and design; and sometimes lead to misinformation. It mostly consists of smiley, gesture, and asana emojis. The selection of emojis has also been based on their popularity and frequently uses. For the selection of the most uses and popular emojis, the researcher has followed the EmojisTracker websites.

5.5.1 Smiley and People

The category of smiley and people includes emojis representing smileys, facial expression, person, heart, hand, and body gestures, and postures.



A similarity can be seen in all the above emojis, which is the smiling face. The only difference is in the eyes and mouth. 😄 (Grinning face) know as a happy face and the smiley face. It often used to convey pleasure in general and good cheer or humor. As part of Unicode 6.1 in 2012, Grinning Face was accepted and added to emoji 1.0 in 2015 (emojipedia).

 (Grinning face with big eyes/ smiling face with open mouth) are like a grinning face, but the eyes are bigger and excited. It is known as a smiley and happy face. It is used to express the general sense of happiness and good-natured fun. In 2010, it was approved as part of Unicode 6.0 and added emoji 1.0 in 2015. This emoji is also identified by the name of his Unicode "smiling face with an open mouth."

 (Grinning face with smiling eyes/Beaming face with smiling eyes). This Emojis is also known by his Unicode name, which is "smiling face with open mouth and smiling eyes." The use and meaning of emoji are the same as "Grinning face with big eyes". It is similar to  (Grinning face) and  (Grinning face with big eyes) but with warmer and less excited eyes. In 2010, it was approved as part of Unicode 6.0 and added emoji 1.0 in 2015 (emojipedia).

 (Grinning squinting face), also known as "smiling face with open mouth and tightly- closed eyes." It has used to communicate the feeling of excitement or hearty laughter. It similar to  (Grinning face), But it has eyes with a squeeze. It shows the feeling of awesome. It called a big grin face, closed-eyes smile, laughing, and XD face (emojipedia).

 (Grinning face with sweat) approved Unicode name "smiling face with open mouth and cold sweat." It is meant to show nerves or discomfort but is commonly used to make a close call as if it were Whew! And from the front wiping sweat. It also knows as exercise and happy sweat face. Both  and  was approved in 2010 as part of Unicode 6.0 and added to emoji 1.0 in 2015 (emojipedia).



"Rolling on the floor Laughing" emojis depicted a face with a big grin and scrunched, x- shaped eyes. Sheds two tears on most platforms and tilts right. Often it used to transmit hysterical laughter. It is known as ROFL. It was accepted in 2016 as Unicode 9.0. Besides, it added to Emoji 3.0 in 2016 (emojipedia).



The emoji depicts a face with a big grin, uplifted eyebrows, and smiling eyes, each shedding a tear from laughing so hard.  (Face with tears of Joy) used to convey a feeling of something funny or pleasing. One of the most used and popular emojis between 2014 to 2019. Its also chose by Oxford Dictionaries in 2015 "word" of the

year. It knows as laughing, laughing, crying, laughing tears, and LOL faces emoji (emojipedia).

It was approved in 2010 as part of Unicode 6.0. Besides, it added to emoji 1.0 in 2015(emojipedia). A cartoon cat 🐱 (cat with tears of joy) is a variety of 😂 (Face with tears of Joy). This emoji is also known as ‘happy tears cat’ and ‘laughing cat’.



Slightly smiling face emojis depicts a face with simple, open eyes and a thin, closed smile. It used to convey a large number of good, positive, and welcoming feel. It can be used as a patron, passive-aggressive, or in a state of irony as if to say that all is well but not really well. It is known as slightly happy, and this is a fine mood. It was approved in 2014 as part of Unicode 7.0. Besides, it added to emoji 1.0 in 2015 (emojipedia).

🙄 This emoji is a reversed version of 😊 (slightly smiling face). It depicts a classic smiley, turned upside down. It used to convey the feeling of irony, sarcasm, joking, or a sense of goofiness or craziness. This means it conveys a similar meaning “to the bemused oh well! Of Person shrugging” (🙄). It also knows as sarcasm and silly face. It was approved in 2015 as part of Unicode 8.0. Besides, it added to emoji 1.0 in 2015 (emojipedia).



person shrugging Indicates a lack of knowledge or lack of care about the outcome of a situation. It was approved in 2016 as part of Unicode 9.0. Besides added to emoji 3.0 in 2015 (emojipedia).

😉 The emoji depicts a face with a slightly shown winking, usually its left eye. 😏 (Winking face) it is used to convey signaling a joke, flirtation, hidden meaning, or general positivity. It used for other variety of tones also such as playful, affectionate, suggestive, or ironic. 😏 (Winking face) was approved in 2010 as part of Unicode 6.0 and added to emoji 1.0 in 2015 (emojipedia).



These four emojis constitute different variants of a smiling face. All have a similarity such as smiling mouth and smiling eyes, according to emojipedia.

😊 Smiling face means yellow face, rosy cheeks with a modest smile, soft, and closed eyes. But on the other platforms, like apple having relaxed eyebrows feature

also. It is like a classic smiley. It is used to express feelings of a wide range of warmth, love, happiness, gratitude, and positiveness. It is similar to 😊 (smiling face with smiling eyes), which has a broader, closed smile turning up to rosy cheeks and, no eyebrows. Use to convey the feeling of genuine happiness and warm, positive feelings (emojipedia).

😇 (Smiling face with Halo) is almost similar to 😊 (smiling face with smiling eyes); only the difference is halo. It is used to convey prayers, blessings and sometimes represents to others and yourself as angels. It also expresses the meaning of doing good deeds. 🧚 (Baby Angel) is similar to 😇 (smiling face with Halo) and conveys the same meaning. 🧚 is known as a cherub.

😍 😍 (smiling face with hearts) is similar to 😊 (smiling face) only hearts floating around the face is different. It uses to Expresses a range of feelings of happiness and affection, particularly in love (emojipedia).



(Grimacing Face) A yellow face is with clear, open eyes and tight teeth. It is used to shows the range of negative or tense emotions, especially nervousness, embarrassment, or discomfort like *Ek!* type. Next to a message, in *Snapchat*, this (😬) emoji means that you send most of the snaps to the same person. This was accepted in 2012 as part of Unicode 6.1. Besides, it added in 2015 to Emoji 1.0. 😬 is also used to convey as “Ek, Foot in Mouth”, and Snapchat Mutual #1 Best Friend (emojipedia).



A similarity can be seen in all the above emojis, which is the kissing mouth. The only difference is in the eyes. 😘 (Kissing Face) A yellow face that has plain, open eyes and puckered lips that is offer a kiss. Commonly expresses feelings of love and affection. Similar as 😘 (Kissing Face with smiling eyes) and 😘 (kissing faces with closed eyes); but it has less private eyes. In 2012, Kissing Face was approved under Unicode 6.1. it added to Emoji 1.0 in 2015 (emojipedia).



😘 (Kissing faces with closed eyes) A yellow face with close eyes, rosy cheeks, and offer a kiss of puckered lips. Commonly expresses feelings of love and affection as like

 (kissing face). It has a cartoon cat variant also, which is  (Kissing Cat). It is the same as  (Kissing Face with Smiling Eyes). In 2010  was accepted as part of Unicode 6.0, and in 2015 added to Emoji 1.0 (emojipedia).

 (Kissing Face with Smiling Eyes) A yellow face with eyes sparkling and lips puckered to offer a kiss. Commonly expresses feelings of love and affection as like  and . However, sometimes it () is used to whistling, particularly when combined with a musical note. In 2012, it was approved as a part of Unicode 6.1. It is also known as Kissy, whistle and Kissing Face with Squinting Eyes (emojipedia).

 (Face Blowing a Kiss) A yellow face waving with a kiss blowing with puckered lips represented as a tiny, red heart. It used to convey a good-bye kiss or good night. It also used to convey emotions of love and affection.  (Face Blowing a Kiss) was approved in 2010 as part of Unicode 6.0 under the name "Face Throwing a Kiss," it also knows as Blow a kiss and Kissing emojis (emojipedia).



 (Winking Face with Tongue) A yellow face sticks out its tongue and gives a humorous grin look. In which generally seen with the closed right eye and wide-open left. It is used to convey a sense of fun, enthusiasm, wackiness, buffoonery, or humor. As part of Unicode 6.0, Wink Face with Tongue was accepted under the names 'Face with Stuck-Out Tongue and Winking Nose' in 2010 (emojipedia). Generally, it is less crazy than Zany Face.  (Zany Face) A smiley, which makes a silly face and yellow face with a large grin and broad, white eyes, one larger than the other, in a cockeyed, wild expression. It is used to convey behaviors like acting silly, having fun and drinking, and different meanings of slang, such as crazy, usually reflect well. Sometimes  is used to express a wackiness spirit more generally. Zany Face was accepted in 2017 under the name "Grinning Face with One Wide and One Small Eye" as part of Unicode 10.0. Moreover, it () added in 2017 to Emoji 5.0 (emojipedia).



A similarity can be seen in all the above emojis, which is the hand with face.

 (Face with Hand over Mouth) A yellow face covers her mouth with a hand. Apple and Facebook have simple features, open eyes, suggesting that somebody ‘gasp Oh my!

Serious surprises, scares, doubts or excuses’. Other platforms reflect a face with bright eyes and/or blushing cheeks that suggest ‘coy ridding or embarrassment as if it were cheeky Oops!’

It is similar to 🙈 (Speak- No- Evil Monkey). In 2017, 🤫 (Face with Hand over Mouth) was accepted under "Smiling Face with Smiling Eyes and Hand Covering Mouth" as part of Unicode 10.0 and added Emoji 5.0 in 2017(emojipedia).

🤫 (Shushing Face) A yellow face that puts an index finger on pursed lips, like *Shh!* or *Shush!* for silence. It is used to convey silence, quiet, secrecy, and discreetness. 🤫 also creates a sense of buzz, excitement and anticipation, for example, an exclusive sneak peek or news scoop. 🤫 (Shushing Face) was accepted under the name "Face with Finger Covering Closed Lips" in 2017 as part of Unicode 10.0 and added to Emoji 5.0 in 2017(emojipedia).

🤔 (Thinking Face) A yellow face is with furrowed eyebrows or thumb and index finger resting on the chin. They are intended to demonstrate a thoughtful or deep-rooted human. Typically used to challenge or ridicule something or someone as if saying ‘*Hmm, I don't know about that*’. One ranges from earnest, humorous, confused, cynical, to mocking. It paired with a 💭 (thought balloon) and 💡 (Light Bulb) to convey, thinking, ideas, and learning. In 2015, Thinking Face was approved as part of Unicode 8.0 and in 2015 added to Emoji 1.0 (emojipedia).

🤗 (Hugging Face) ‘A yellow face is with open hands smiling as if it were offering a hug’. It (🤗) Can be used to give thanks and support, to show love and care, or more generally to express moist, optimistic feelings. Because of his hand gesture, often use to portray jazz hands, evoking emotions such as anticipation, passion or a sense of thriving or achievement. In 2015, 🤗 was accepted under Unicode 8.0 (emojipedia).



😐 (Neutral Face) A yellow face is with open and easy eyes and a wide, closed mouth. It was designed to represent a neutral emotion, but it is used to convey mild annoyance and concern or a sense of humor. As part of Unicode 6.0 in 2010, Neutral Face was accepted and added to Emoji 1.0 in 2015 (emojipedia).



(Face with Raised Eyebrow) A yellow face with a flat, neutral mouth and furrowed eyebrows, whose left elevated above its right. It is used to convey a wide range of emotions, including ‘doubt, skepticism, fear, concern, denial, and disapproval’. As part of Unicode 10.0,  (Face with Raised Eyebrow) was accepted in 2017(emojipedia).



(Zipper-Mouth Face) A yellow face is with open, plain eyes and a closed mouth zipper. The definition varies widely but mostly conveys a secret e.g., ‘*My lips are sealed*’. It also used to tell someone to stop talking, e.g., ‘*Zip it! or I’ll shut up now*’. As part of Unicode 8.0, Zipper-Mouth Face was accepted and added to Emoji 1.0 in 2015 (emojipedia).



(Expressionless Face) A yellow face is with eyes and mouths wide and closed. it is used to Convey a more intense sense of anger or irritation than the Neutral Face. Unicode 6.1 approved Expressionless Face in 2012, and added Emoji 1.0 in 2015.



(Flushed Face) The emoji shows wide eyes, high lips, blushing cheeks, and a slightly open mouth. It shows the sender looking directly at the receiver.  is used for expressing surprise and/or uncertainty. It is used alone, with questions to offer to clarify or explain the comments made or expressed. Other senses include ‘flattery, surprise, envy, skepticism, love, and excitement’. In 2010, Flushed Face was certified under Unicode 6.0.  added to Emoji 1.0 in 2015(emojipedia).



(Unamused Face) This emoji has a small grin and bent eyebrows and mouth slightly downwards. It is used to convey a range of negative emotions, including annoyance, unhappiness, grumpiness, and skepticism, as though the side-eye giving. It is similar to a  (Smirking Face). This has similar eyes but a wry smile. This emoji (



) depicts a smile raised on one side of the nose, with slightly closed eyes, eyebrows, and closed mouth. It has been used to show indifference towards what has been said or done. It is often used to invoke sarcasm. This emoji () has the  (Cat Face with Wry Smile) version. This emoji () beside a touch on Snapchat

denotes that this individual often snaps you, but you don't snap them in return. In 2010,



(Unamused Face) had been accepted as part of Unicode 6.0 (emojipedia).



(Pensive Face) A face is wondering to guilt and unhappy with life. 🙄 emoji has a small straight-line jaw, eyes closed and eyebrows bent sideways. This is used mainly as a sad expression, including feeling disappointed, hurt, or lonely. Less serious than other sad emojis like 😭 (Loudly Crying Face). 🙄 is similar to 😌 (Relieved Face). That shaped eyes similarly, but in a happier tone. 🙄 (Pensive Face) is often used interchangeably with one teardrop (😓) on the sad face.

In 2010, it (Pensive Face) was introduced in Unicode 6.0 and in 2015, added to Emoji 1.0 (emojipedia).



(Crying Face) This emoji portrays a face with a downward mouth, tiny oval eyes, arched eyebrows, and a one-eye running tear. It is used to moderate degree of pain or sorrow, typically less intense than the 😭 (Loudly Crying Face). This emoji (😓) also has a cartoon cat variant 🐱. In 2010, Crying Face had been approved as part of Unicode 6.0 (emojipedia).



The above two emojis display pouting faces with a flat, smooth jaw, closed eyes, and inner eyebrows. 😡 (Angry Face) is used to transmit different levels of anger from grumbling, irritation to disgust and outrage. Sometimes it is used to tell someone that tough or mean. 😡 (Pouting Face) Pouting Face is also used to bears the same expression. These two faces are used to express frustration and disappointment with somebody or something. The red color emoji are used to show the intensity of anger (emojipedia).

These emojis (😡 😡) have a cartoon cat variant emojis (🐱) and person pouting face emoji (😓). Both emojis (😡 😡) has been accepted in 2010 as part of Unicode 6.0. Moreover, it is added in 2015 to Emoji 1.0. Angry Face with Horns (😡) and

Smiling Face with Horns () bears the same expression as  and . In addition, it () is used to reflect devilish behavior, in particular around Halloween. This is often used to convey various feelings of rage or ideas of evil (emojipedia).



These two emojis represent a happy face. The difference is only in eye style.  (Smiling Face with Heart-Eyes) describes a yellow face with an open mouth, teeth occasionally, red cartoon- hearts style eyes.  is often used to convey enthusiastic feelings of love, infatuation, and adoration, e.g., *'I love this person or things, and I am in love with this person or thing'*. This emoji has a cartoon cat variant  (Smiling Cat with Heart-Eyes) emoji. Besides of this,  (Star-Struck) describes a yellow face with a big, wide smile showing high teeth, with eye stars, as if seeing a favourite party on most platforms.  (Star-struck) can be used to convey the expression of amazing, interesting, outstanding or exciting is someone or something (emojipedia).



This emoji has curved eyes and a large smiling mouth at one corner of the mouth with the tongue sticking out. It means that a person has just finished eating something and that he/she licks his / her lips as a sign of delicious food. This is usually used when users speak about food or any occasion that involves food in general. In other words, it is also used to translate as standing for "yummy" interjection!



(Face Savoring Food) also used to express that a person is attractive. It () (Face Savoring Food) was approved under the name "Face Savouring Delicious Food" as part of Unicode 6.0 (emojipedia).



This emoji displays a face with closed eyes, a tiny open mouth and over the head a set of 3 "Z" symbols, which are obviously snoring. It is used to demonstrate sleep. It is used mainly in connection with a sleeping textual announcement or a "good night" term. In 2012,  (Sleeping Face) was approved as part of Unicode 6.1 (emojipedia).



(Yawning Face) A yellow face with eyes closed and a hand covered with a wide-open mouth. Captured mid-yawn, this represents insufficient sleep or imply boredom. As part of Unicode 12.0 in 2019, Yawning Face has now been accepted, joined Emoji 12.0 in 2019 (emojipedia).



This emoji is a blue-headed face with little round eyes, curved mouths, curved eyebrows and a drop of sweat flowing from the eyes. This emoji is often used according to the context to express humiliation and disappointment. In 2010 under the name of "Face with Open Mouth and Cold"  (Anxious Face with Sweat) was approved as part of Unicode 6.0 and in 2015 added Emoji 1.0.



This emoji depicts a wide-blank nose, a blue eye, an open mouth, and two hands-on cheeks. It is used to convey surprise and anxiety when something wrong has just been said or done. This is intentionally a fan of surprise, awe, incredulity, and extreme anticipation, but it is intended to represent terror and anxiety. In 2010 as part of Unicode 6.0  (Face Screaming in Fear) was approved and added in 2015 to Emoji1.0 (emojipedia).



These all emojis are related to the medical field.  (Face with Medical Mask) has eyes closed and the mouth has a medical mask. The first thing people think of when seeing this emoji is that the person who uses it is sick. It has been used sometimes to describe something that smells bad. It is also used as a mask to avoid airborne diseases. In 2010, Unicode 6.0 approved the  (Face with Medical Mask), and Emoji 1.0 was added in 2015 (emojipedia).



(Face with Thermometer) A yellow face with eyebrows raised or furrowed, and a thermometer in its mouth. Often it is portrayed with red cheeks, such as fever. It is used to convey that someone's hospital patient and a person with cold and flu.



(Face with Head-Bandage) A yellow face with a white and semi-frown bandage wrapped around his head, also partially seen over an eye. It is used to represent

physical injury or pain, but also emotional injury, for ironic purposes sometimes (emojipedia).

 (Sneezing Face) A yellow face is with the x-shaped eyes that, like a cold or allergy, sneezes or blows in white tissue. It is sometimes used to state emotional wiping away tears, as at a wedding also.  was accepted in 2016 as part of Unicode 9.0 and added in 2016 to Emoji 3.0 (emojipedia).

 (Face with Steam from Nose) A yellow face with eyes closed, broad frowning, and two sparkling steam blowing out, as if in a huff or fuming. This is used to express frustration, annoyance, and anger. Sometimes, it is also used to convey feelings of pride, dominance, and empowerment. In 2010 under the name "Face with Look of Triumphal,"  was approved for Unicode 6.0 and added to Emoji 1.0 in 2015 (emojipedia).

 (Dizzy Face) A face with eyes with X's or spirals, and a small, open mouth. It is sometimes seen with eyebrows lifted or furrowed. It is used to convey an increased or hyperbolic sense of feelings, for example, shock, surprise, disbelief, awe, and amazement. It is also used to represent the sickness, nausea, intoxication, and death, e.g., '*slang I'm dead!*' In 2010,  was approved as a Unicode 6.0 component and added in 2015 to Emoji 1.0 (emojipedia).

 (Partying Face) A yellow face blowing a party horn with a party hat and confetti is floating around his head. Used to celebrate happy occasions and more commonly appreciate good times. In 2018, , under the name "Face with Party Horn and Party Hat" it was approved under Unicode 11.0. It is added to Emoji 11.0 in 2018 (emojipedia).

 (Smiling Face with Sunglasses) A yellow face with a big, near smile, as if a couple of typical Wayfarers has black sunglasses. It is sometimes used to convey the cool slang sense. It can be used to show a relaxed, unconcerned attitude, or something excellent. It is similar to  (Nerd Face). As a Unicode 6.0 component,  was accepted and added to Emoji 1.0 in 2015 (emojipedia).

 (Face with Monocle) A yellow face with a monocle furrowed eyes. It is used to indicate that somebody thinks about, considers, or doubts something. It is also used to convey a sense of sophistication or intellect. In 2017, as part of Unicode 10.0 and Emoji, 5.0, it was accepted (emojipedia).

 (Pleading Face) A furrowing yellow face, a small frowned eye, and big 'ducky dog' eyes as if begging or pleading. It represents adoration or feeling touched by a loving gesture. In 2018, under the name "Face with Pleading Eyes"  was approved as part of Unicode 11.0 (emojipedia).

 (Lying Face) A yellow face with raised eyebrows, swollen lips, softly colored, and long nose, that suggests a lie in Pinocchio (cultural icon) form. That reflects, to a diverse degree, lies, liars, and other ideas of deceit and dishonesty. Sometimes it is used to express incredulity or denial, e.g., '*you must be kidding as if caught in the act of lying*'. As part of Unicode 9.0, ()Lying Face has been accepted in 2016 (emojipedia).



This emoji displays a thumbs-up symbol. This is generally used to express support and gratitude for what someone said or shared at the party and somewhere else. It is also used to thumbs-up motion signaling approval. In 2010,  (Thumbs Up) was accepted under the name "Thumbs Up Sign" as part of Unicode 6.0. In 2015, it joined Emoji 1.0 (emojipedia).



This emoji shows the waving hand. It is used to alone or in conjunction with "hi" or "goodbye" in the corpus. This represents how people communicate face to face with this gesture to welcome each other or to say goodbye to each other. In 2010  (Waving Hand) was accepted under the name Waving Hand Sign as part of Unicode 6.0. In 2015 Emoji was added to the name of Waving Hand Sign (emojipedia).



This emoji displays a closed fist against the audience. It was used to be a punching act. In 2010 the  (Oncoming Fist) under the name of "Fisted Hand Sign" was approved as a part of Unicode 6.0.



(Clapping Hands) This emoji is a clapping gesture. It shows two hands that strike each other to create an audible echo. It is used to display festivity and excitement. This also used to promote and acknowledge someone's involvement. In 2010 under the name 'Clapping Hands Sign'  was approved in Unicode 6.0 and in 2015, it was added to Emoji 1.0 (emojipedia).



The emoji represents a hand that forms a circle between the thumb and index finger and the other fingers are identical. It is used to convey “perfect,” “excellent,” “exactly true.” In 2010  (OK Hand) was approved under the name OK Hand Sign as part of Unicode 6.0.



This emoji is a pointing index finger. It is used mainly to point to an image, a video, a link, or even a text.  (Backhand Index Pointing Down) were approved under Unicode 6.0 in 2010 and added to Emoji 1.0 in 2015 under the name "White Down Pointing Backhand Index".



This emoji is represented a thumb-down sign. It is used to represent disapproval of someone or something. In 2010  (Thumbs Down) under the name "Thumbs Down Sign" was approved for Unicode 6.0 and added to Emoji 1.0 in 2015 (emojipedia).



(Love-You Gesture) The sign language gesture for "I love you" is shown as a lifted rosy finger, index finger, and long thumb. In 2017,  (Love-You Gesture) was authorized as part of Unicode 10.0 and added to Emoji 5.0 under the "I Love You Hand Sign."



Two hands are tightly put together. In Japanese culture, it means please or thank you. This emoji is also often used as an alternative to prayer but rarely used it for high-five. In 2010 under the title "Man with Folded Hands"  (Folded Hands) was accepted for Unicode 6.0, which was added to Emoji 1.0 (emojipedia).



A finger is pointing upward that is used to represent or ask a question of the number one. The 👉 (Index Pointing Up) was approved in 1993 under the name of the "White up Pointing Index" in Unicode 1.1 (emojipedia).



It is used as a symbol of peace, but historically it has used for victory also. In British culture, the opposite of this gesture, like giving the middle finger, is considered an offensive act. As part of Unicode 1.1, 🤘 (Victory Hand) was accepted in 1993 and Emoji 1.0 was added in 2015.



(Raising Hands) Two hands raised in the air. It is used to convey a celebration of success and happy event. In 2010 under the name of "guy raising both hands at celebrations," 🙌 (Raising Hands) was approved as part of Unicode 6.0 (emojipedia).



The emojis represents the marks of luminous lipstick after a deep kiss. This emojis used instead of 'xxx,' or to kiss someone. It is more Seductive than the 😘 kiss emoji. As part of Unicode 6.0 in 2010, 💋 (Kiss Mark) was approved and added Emoji 1.0 in 2015 (emojipedia).



Emoji has a sinister red mask and a long elongated nose. It also has grumpy eyes, bushy eyebrows, and a mustache. In Japanese folklore, it is used to portrays a tengu, a proud trickster figure. Because of the phallic appearance of the nose, it popularly denotes evil and is used to rage, cruel or mischievous conduct and sexual suggestion. It is also used to represent the supernatural or figurative trolls, goblins, and other creatures of that sort. In 2010, 🙈 (Goblin) was accepted under the name "Japanese Goblin" as part of Unicode 6.0 and in 2015 added Emoji 1.0 (emojipedia).



(Pile of Poo) A brown swirl, shaped like ice cream, with a wide, aroused eyes and a great, friendly smile. It is used for faces and other subjects in the bathroom as well as for their other similar names. It also has a large range of unique applications, such as

conveying a feeling of whimsicality or silliness, because of its fun and happy expression (emojipedia).



Emoji has a cartoon-styled, whitish-gray human skull with wide, black eye sockets. It is used to convey the dying from intense anger, annoyance, or love. It is similar to Halloween.  (Skull) has been approved in 2010 under Unicode 6.0 and added in 2015 under Emoji 1.0 (emojipedia).



Emoji has an arm that bends to reveal the muscle biceps. It is used to convey the strength and working out. As part of Unicode 6.0 in 2010,  (Flexed Biceps) was approved and added in 2015 under Emoji 1.0 (emojipedia).



(Eyes) Emoji has a pair of eyes, looking on most platforms slightly to the left. It is used to convey the approval of an attractive picture and sometimes for a deceitful act.



(Person Raising Hand) A person with his or her hand in the air wants to ask a question or answer it. In 2010,  (Person Raising Hand) was approved under the name "Happy Person Raising One Hand" as part of Unicode 6.0 (emojipedia).



A person dance, often seen as a woman wearing a red dress. It is used to convey a sense of fun or as a positive affirmation, e.g., "great!" This emoji was not first indicated as a gender, but since emoji  man dancing was accepted, it is considered a woman.

In 2010,  (Women Dancing) was approved under the name "Dancer" as part of Unicode 6.0 and in 2015 added in 2015 under Emoji 1.0 (emojipedia).



A person running, holding out his arms and a big move. This emoji does not indicate a gender but is seen on several platforms as a male. In 2010,  (Person Running) under the name "Runner" was approved as part of Unicode 6.0 (emojipedia).



(Person Bowing) A person who bows deeply and is known in Japan as dogeza (elements of Japanese etiquette). It is actually used to apologize or show favor. 

emoji has misinterpreted meanings also such as a person doing push-ups, lying down to have a massage, or doing a cute "head resting on hands" gesture, which bases on their users (emojipedia).



(Person Gesturing OK) A person emoji is with his or her arms overhead and entire body with an OK symbol. There is no gender, but this emoji is typically shown as a woman.  (Person Gesturing OK) was approved under the name 'Face with the OK Gesture' as part of Unicode 6.0 (emojipedia).



(Person Gesturing No) A person with arms crossed and an 'X' shaped to signify no or no good. This gesture is seen on the Deal or No Deal TV game show to indicate 'No Deal.'  (Person Gesturing No) has been accepted under the name "Face with No Good Gesture" as part of Unicode 6.0 in 2010 and in 2015 added Emoji 1.0.



(People with Bunny Ears) A Playboy Bunny's version is known as a Bunny Girl in Japan. It represents a pretty woman wearing a bunny in her ears. On some platforms, such as Apple, two girls are shown dancing, each with a lettered and bunny ears. Some interpretations have been made of a woman's face with running ears. This emoji's two-person version is also used to demonstrate friendship, fun, or let us party (emojipedia).



This emoji portrays a man and a woman with a rosy smile. This appears on supported platforms as a single emoji. Kiss: Girl, Man, Emoji 2.0 was introduced in 2015 (emojipedia).

5.5.2 Animal and Nature

The category of Animal and Nature includes Emojis of plants, animals, and water.



(Unicorn) The face is a unicorn in the shape of a white horse with a single, longhorn on the top. It is generally portrayed as a white horse head with a pink or violet crust on the left and a yellow or arched tail.  is used to communicate mystical unicorn, eccentricity, fantasy, personality, skill, harmony, and love. Often used for

various LGBTQ content, in part because of its rainbow colors on several platforms. It is sometimes used as a rainbow or as a holographic focus (emojipedia).



(Rabbit Face) An emoji is the friendly face of a rabbit, cartooned, looking straight ahead. It is used to frequently used in a more gentle tone than a full-bodied rabbit. It is also used sometimes for the Easter Bunny representation. In 2010, 🐰 (Rabbit Face) was approved in Unicode 6.0 (emojipedia).



An emoji of chicken bird that is used for meat and eggs. The white head of a chicken, with a yellow beak, a red blackhead, and a red wattle at its back, is commonly portrayed. It is used to and eaten as Poultry Leg shape. As part of Unicode 6.0, 🐔 (Chicken) was approved in 2010. In 2015, it was added to Emoji 1.0 (emojipedia).



(Crocodile) A crocodile is a stubborn reptile with wide jaws. It is used as an alligator. As part of Unicode 6.0, 🐊 (Crocodile) was approved and added in 2015 as emoji (emojipedia).



(Dolphin) Smart, social, a sleek fish, professionally, and intelligently recognized animal. It is used for various swimming, ocean, beach, and summer fun material. As part of Unicode 6.0 in 2010, 🐬 was accepted (emojipedia).



(Octopus) An octopus, an eight-legged marine mammal, noted for shifting color and loosening ink. Typically, it has seen in pink or orange pumpkin facing with a wide, round head, prominent eyes, and tentacle arms on its lateral sides. Platforms differ in the number of arms shown, ranging from four to eight with different designs with suckers on them. As part of Unicode 6.0, 🐙 (Octopus) was approved in 2010 and, in 2015, added to Emoji 1.0 (emojipedia).



(Hatching Chick) A baby chicken emerged from an egg and first saw the world. Represented as a yellow chick with a sweet smile on her arms facing the cracked,

bottom half of a white egg. Frequently used with a caring tone. It is also used to represent different types of baby birds and chicken foods, e.g., poultry, eggs, spring, Easter, or chick slang. As part of Unicode 6.0,  (hatching chick) was approved in 2010 and added to Emoji 1.0 (emojipedia).



(Bouquet) An emoji is a beautifully colored bouquet of flowers. Generally, it is represented as a collection of pink and yellow flowers with tied green stalks. It is usually used on valentine's Day , mother's Day , and other special events. It is also used to express affection, gratitude, and happiness in general. As part of Unicode 6.0,  (Bouquet) was approved in 2010 (emojipedia).



This emoji portrays one red rose. It is usually used on Valentine's Day , Mother's Day , and other special events like . It is also used broadly to describe emotions such as passion, love, and romance. Some people use it as symbols of socialism and red color of accent. Besides, it is used in praise or in response to a compliment. The emoji also used concurrently with other emojis as a celebratory display. In 2010,  (Rose) was approved as a Unicode 6.0 member, and in 2015, it was added to Emoji 1.0 (emojipedia).



(Sunflower) A sunflower, a huge, round flora with big yellow petals. The vertical sunflower is shown as a single one with a large, dark-brown center on the green stem. It is frequently used on Mother's Day and other special events. Sometimes it can be used more commonly to convey these feelings of joy and affection. It is also used in combination with summer and farming as a yellow accent. As part of Unicode 6.0 in 2010,  (sunflower) was approved (emojipedia).



(Maple Leaf) The distinctive of the maple tree leaf, in the shape of a star. Used as a symbol of Canada on the flag  of the Canadian nationality. Also more widely used

to describe trees and the autumn season. 🍁 (Maple Leaf) was accepted as part of Unicode 6.0, and Emoji 1.0 was added in 2015 (emojipedia).



(Shamrock) A shamrock is a plant similar to a clover. Picture of three heart-shaped leaves as a bright green branch. It is used to illustrate the Christian idea of the Holy Trinity as an icon of Greece and a symbol of St. Patrick (Ireland culture). Commonly it is used in connection with Irish culture and heritage at St. Patrick's Day. As part of Unicode 4.1, 🍀 (Shamrock) was accepted in 2005, with the introduction of Emoji 1.0 (emojipedia).



(Mushroom) The edible mushroom fungus is displayed as a toadstool with a red, white pointed cap and trunk. In 2010, 🍄 (Mushroom) was approved as part of Unicode 6.0, and in 2015 added to Emoji 1.0 (emojipedia).



(Chestnut) The reddish-brown, gag-shaped chestnut tapers on most platforms to a pointed tip from the light brown base. It is like a popular roast snack in the autumn and Christmas seasons. It is used to convey the edible nuts or sexual slang. In 2010 🌰 (Chestnut) was accepted under the Unicode 6.0 and added in 2015 under the Emoji 1.0 (emojipedia).



These emojis depict a monkey with his paws, his eyes, his mouth, and his ears. The three emojis are typically used together if the user does not want to take part in a conversation, for instance, when people talk about politics. It is used together to express 'see no evil,' 'no bad speak,' and 'no hear evil,' respectively (emojipedia).



(Palm Tree) A palm tree, a plant like a tree, grows by the sea. The palm tree is depicted as tall, green, feathery as leaves and a wide, dark, segmented trunk. It is used to convey for beaches, warm environments, and traditions, summer fun, and holidays. As part of the Unicode 6.0 in 2010, 🌴 (Palm Tree) was approved (emojipedia).

 (Tulip) A rosy floral tulip. The pink vertical tulip is depicted as a single on a green base. It is usually used on Valentine's Day , Mother's Day , and other special events. It can be used to describe emotions such as affection, gratitude, and satisfaction more generally. Used as a pink accent in association with the Netherlands. As part of Unicode 6.0,  (Tulip) was accepted in 2010 and added Emoji 1.0 in 2015 (emojipedia).



(Frog) A frog's face is a jumping amphibian. In general, it is described as a light green frog, friendly cartoon-style with wide eyes, slightly open mouth, and nostrils. It is used to convey for gossip or sarcasm, trolling, and alt-right. In 2010, Frog was accepted under the name of  (Frog Face) as part of Unicode 6.0 (emojipedia).



(Hibiscus) A pink hibiscus is a flower that grows in warm environments. It is represented as a single, deep-rose hibiscus with green leaves and prominent yellow stamen. It is commonly used on Valentine's Day , Mother's Day , and other special occasions like . It can be used more commonly to convey concepts such as passion, love, joy, and beauty. Often used as a rosy accent color in collaboration with Hawaii and other Polynesian locations and cultures. As part of Unicode 6.0,  (Hibiscus) was approved in 2010, adding to the Unicode 1.0 in 2015 (emojipedia).



(Fire) It is a flame, like when something is on fire. It is like Pictured as a flickering blazing red, orange, and yellow. It is used to convey various fire-related metaphorical expressions, including the hot and lit slang, in other meaning "attractive" and "excellent." Snapchat shows Fire next to two users on a *snapstreak* or texting for over three consecutive days. As part of Unicode 6.0 in 2010,  (fire) was accepted and added to Emoji 1.0 in 2015 (emojipedia).



(Globe with Meridians) A stylized globe is a latitude and blue meridians. The light-blue grid of lines on a green, blue, or black circle is represented. It is used as an internet icon or a world-wide-web, international communications, networking and networks,

timescales, co-ordinates, or the globe in a broader context. In 2010 as part of Unicode 6.0,  (Globe with Meridians) had been accepted (emojipedia).



(Ant) An ant, a small, heavy insect, is living in a colony. The six legs of a black or red ant are depicted in full profile, with a prominent abdomen and antennae facing left. It is used to represent the feeling of various insects or other bugs. In 2010,  (Ant) had been recognized under Unicode 6.0, and in 2015, it was added to Emoji 1.0 (emojipedia).



(Snake) A snake without arms is a slithering reptile. In general, it is represented as a yellowish-green snake with a long body, a red, forked tongue. It is used to convey various metaphorical snake senses. As part of Unicode 6.0,  (Snake) was accepted in 2010 and added to Emoji 1.0 in 2015 (emojipedia).



(Cloud with Rain) Cloud of rain. It is illustrated as blue raindrops from a white cloud. It is used to convey rain showers or rainy days. In 2014, the  (Cloud with Rain) was accepted under Unicode 7.0 (emojipedia).



(Sparkles) Glittering sparkles shine. It is usually depicted as a three-point, bright, four-point cluster, with a major sparkle and two smaller ones to its left or right. Used to signify various positive emotions, including passion, joy, elegance, appreciation, and excitement. In 2010  (Sparkles) was accepted for Unicode 6.0 (emojipedia).

5.5.3 Food and drink

The category of Food and Drink includes emojis representing fruit, vegetables, meals, beverages, and utensils.



(Hamburger) An emoji of beef burger is commonly depicted on a sesame bun with cheese, lettuce, and tomato. It is a cheeseburger but officially recognized by Unicode as Hamburger. As part of Unicode 6.0 in 2010,  (Hamburger) was accepted and added in 2015 to Emoji 1.0 (emojipedia).



(Pizza) A slice of black olive pepperoni pizza is on Google. WhatsApp and Samsung added white onion and the green pepper in pizza emoji. In 2010 under the name "slice of Pizza"  (Pizza) was accepted under Unicode 6.0 and in 2015 was added to Emoji 1.0 (emojipedia).



(Wine Glass) A stemmed glass of red wine served. As part of Unicode 6.0,  Wine Glass had been accepted in 2010 and added Emoji 1.0 in 2015 (emojipedia).



(Hot Beverage) A cup of steaming-hot drinks usually consumed as coffee or tea. Occasionally, it is seen on a saucer. Samsung has shown this emoji in a frothy white tulip design. As part of Unicode 4.0,  Hot Beverage was accepted in 2003 and added Emoji 1.0 in 2015 (emojipedia).



(Soft Ice Cream) A soft-serving ice cream, like vanilla, on most platforms, on a wafer-like cone. It is used to convey the frozen yogurt and frozen treats more generally. As part of Unicode 6.0, in 2010 the  (soft ice cream) was accepted and added into Emoji 1.0 in 2015 (emojipedia).



(Clinking Beer Mugs) Two frosty mugs of beer that clink together with frothy heads are clinked together to celebrate the good occasion, for example, "cheers." As part of Unicode 6.0,  (Clinking Beer Mugs) was approved in 2010 as emoji (emojipedia).



(Tropical Drink) A sunset-orange tropical drink is like a rum punch or maybe Tai, in a stemmed glass. It is served in a garnish of straw and fruit. A cocktail umbrella is used in many other sites, thus a paragliding drink. In 2010,  tropical beverages were accepted as part of Unicode 6.0 (emojipedia).



(Doughnut) A chocolate-glazed doughnut sprinkles with a rainbow. It is used for mild hunger or evening tea. In 2010,  Doughnut was accepted under Unicode 6.0, and in 2015 added Emoji 1.0 (emojipedia).



(Birthday Cake) A cooled cake is with lit candles. It is used as presented to celebrate a birthday. Cake style differs widely on all platforms. Apple and Google concepts propose a Japanese Christmas cake with white frosting and strawberries. Whereas, many vendors featured a cake filled with chocolate, peaches and sponges. As part of Unicode 6.0, the  Birthday Cake was approved in 2010 (emojipedia).



(Eggplant) A thick, bulbous, lustrous purple eggplant or aubergine is shown with a leafy trunk in British English. Those who dream of brinjal on the first night of the New Year in Japan are considered lucky. It is used to represent a penis. After its phallic use, in 2015, Instagram Search Function once banned the hashtag # . As part of Unicode 6.0,  (Eggplant) was approved in 2010 under the name "Aubergine" (emojipedia).



(Peach) The fleshy, pinkish-orange peach fruit is displayed with green leaves and a stem at times. The emoji is most widely used for "buttocks" because of its distinctive splinter. The peach emoji is used to refer to impeachment in some contexts.  Peach was approved in 2010 under Unicode 6.0.



(Cherries) Two rich red-green leafed cherries are with their long stems. It is used to refer to male or female genitalia. As part of Unicode 6.0,  Cherries was approved in 2010 and added Emoji 1.0 in 2015 (emojipedia).



(Chocolate Bar) A dark chocolate block, normally seen in a red foil wrapper, scrubbed back to reveal the candy squares. WhatsApp shows the violet wrapper, a color typically used by Cadbury chocolate.

In 2010,  Chocolate Bar was approved in Unicode 6.0. However, it is added in 2015 to Emoji 1.0.



(Avocado) A pear-shaped avocado, which half-cut to reveal its pale-green body and a large brown pit. It is used to convey the toasts, guacamoles, or thousand-year-old jokes.

In 2016, Avocado was accepted in Unicode 9.0. In addition, it is included in 2016 in Emoji 3.0 (emojipedia).



(Hot Pepper) A slightly curled, green base and bright red Mexican chili. It is used as a dish on a restaurant menu to reflect something "sweet and spicy," figuratively or literally. 🌶️ (Hot pepper) was approved in 2014 as part of Unicode 7.0 (emojipedia).

5.5.4 Activity

The category of Activity includes emojis representing sports, music, the arts, hobbies, and other activities.



(Soccer Ball) A round, black and white soccer ball is known in much of the world as football. In 2009, ⚽ Soccer Ball was accepted as part of Unicode 5.2, and in 2015 added to Emoji 1.0.



(Basketball) An orange basketball with a hoop on showed. Most variants of this emoji do not have the hoop and instead display basketball. 🏀 was approved under the title "Basketball and Hoop" as part of Unicode 6.0 in 2010 and added to Emoji 1 in 2015 (emojipedia).



(American Football) The oval ball used in American football, known in many countries as a gridiron. As part of Unicode 6.0, 🏈 American Football was accepted in 2010 and added to Emoji 1.0 in 2015.



(Baseball) A white baseball is with a red stitching regulation. It is used as baseball also. As part of Unicode 5.2, ⚾ baseball was approved in 2009 and added 1.0 in 2015 (emojipedia).

5.5.5 Travel & Places

The category of Travel and Places includes emojis representing scenes, locations, buildings, and modes of transport.



(Metro) A metro: known as regular subway trains located in high-population built-up areas. As part of Unicode 6.0,  Metro was approved in 2010. It was added in 2015 to Emoji 1.0 (emojipedia).



(Map of Japan) It displays a map of Japan, which is the only country with an emoji map of its own. The Japanese map emoji was approved in 2010 as part of Unicode 6.0. However, it added to Emoji 1.0 in 2015 as "Silhouette of Japan."



(Hospital) A place is to take people to get medical attention. This hospital has a broad red frontal cross, which is often used as a health symbol. The Unicode 6.0  hospital was approved in 2010, and Emoji 1.0 was added to 2015 (emojipedia).



(Statue of Liberty) The Liberty Statue, it is used as a symbol of New York. As part of Unicode 6.0, the  Statue of Liberty was approved in 2010 and added Emoji 1.0 in 2015 (emojipedia).



(Oncoming Bus) In some variants of this emoji, the face of a bus displays the windshield and wing reflector. As part of the Unicode 6.0 project, the new  bus was approved in 2010 (emojipedia).

5.5.6 Objects

The category of Travel and Places includes emojis representing household things, holidays, documents and various artifacts.



(Party Popper) A popper is exploding in a confetti shower and streaming at a celebration. In general, it is depicted as a gold party hat, strewn at 45 ° angles, on a variety of platforms. Used often for celebrations and festivals, including on New Year's Day, birthdays, wedding days, graduations, special occasions or more generally fine times (emojipedia).



(Confetti Ball) A golden disk, in a shower of multicolored confetti and floats, split into two parts. Used often for celebrations and festivals, including on New Year's Day, birthdays, wedding days, graduations, special occasions, or more generally fine times as like 🎉. As part of Unicode 6.0, 🎉 Confetti Ball was approved in 2010 (emojipedia).



(Wrapped Gift) A gift or decoration in a box attached to a bow, as offered on a birthday or Christmas day. The colors of the box and ribbon vary across platforms but are usually represented as a gold box with a roller-coated top. Commonly used in various holidays, festivals, and special occasions to reflect gifts and presents (emojipedia).



(Ribbon) A rose or red ribbon, attached to a bow on a gift or female hat. This is used to describe something sweet, cute or different, even on vacations. Often used for different material about baby girls and more commonly for their pink or red colors (emojipedia).



(Laptop) An emoji is a personal laptop or computer. It is used to convey the various content concerning computer technology, job, activity, and other work material. 💻

(Laptop) was accepted as part of Unicode 6.0 in 2010 and was added to Emoji 1.0 in 2015 under the name "Personal Computer."



(Mobile Phone) an emoji of mobile phone generally used to calls, text messaging, social media, and takes selfies. It is represented with a generic blue screen or colorful app icons as a black or gray smartphone. It is also used to convey various mobile, technological, and communications contents (emojipedia).



(Books) The emoji of hardcover books with a loose stack. Generally, it is used for different reading and schooling content. The color and orientation of on platforms differ but are mostly seen in red, green, and blue (emojipedia).

(Calendar) the emoji of the calendar. This page is usually displayed with month and day on a white square page. It is used to remind the upcoming celebrations or memorial dates similar to 📅Tear-Off Calendar and 🗓️Spiral Calendar. It is used in general for different contents relating to time, date, timetable, scheduling, and observance (emojipedia).



(Microscope) A microscope is used to tiny magnifying objects, such as cells or insects in scientific laboratories. The visual microscope is represented as a compound with an adjustable okay, lens, arm, and slide stage attached to a base, commonly used in science and analysis for different materials. It can also be used for different inspection senses (emojipedia).



(Money Bag) the emoji is a money-filled of wallet. It is generally portrayed as a sack tied and displays a sign for the dollar. It is commonly used for different wealth and money content (emojipedia).



(Bomb) the emoji of a cartoon-styled bomb with a burning fuse as a black ball. It is used generally for different explosives or blasts, e.g., slang blast, baseball or softball, home running, excellent, or attractive. It is often used in battle, guns, or aggressive contexts (emojipedia).

5.5.7 Symbols

The category of Travel and Places includes emojis representing symbols, clocks, arrows, signs, and shapes.



(Red Heart) A classic red love emoji. It is used for love expressions. The emoji is shown on most sites in various shades of color. Generally, it is used to convey care, affection, love etc. In 1993, under the name "strong dark heart," Red Heart was accepted as part of Unicode 1.1 (emojipedia).



(Growing Heart) A pink heart inside a rosy heart that is slightly big. It is used to show the impression of a larger heart. As part of Unicode 6.0 in 2010, 💕Rising Heart was approved, and in 2015, it was added to Emoji 1.0 (emojipedia).



(Heart with Arrow) An emoji with a middle arrow, which is like the one that cupidity, shoots out of love. Sometimes it is used to convey the feeling of a broken heart. In 2010, Heart with Arrow was approved for Unicode 6.0 and in 2015 added to Emoji 1.0 (emojipedia).



(Heart with Ribbon) the emoji of a heart, tied with a ribbon. It is used to convey someone's care for the heart. Ribbon Heart was accepted in 2010 as part of Unicode 6.0 and Emoji 1.0 was added in 2015.



(Sparkling Heart) the pink heart emoji with sparkling or shimmering stars. It is used to show happiness and joy of heart.



(Broken Heart) the emoji of the heart of love divided into two-part. The emoji is used to convey the feeling of sorrow when someone misses the person, which they love. The emoji conveys the feeling of sorrow when someone misses the person, which they love (emojipedia).



(Two Hearts) the emoji is two pink hearts. It is used to convey that love is in the air.



(Beating Heart) the emoji of heart with lines of motion indicating that someone's heart is beating. It is used to convey life or love (emojipedia).



(Yellow Heart) The emoji is a love heart in yellow or gold. This emoji next to contact on Snapchat shows the person who snaps the most and whom to snaps the most.



(Black Heart) The emoji of completely black heart shaded. This is used for describing morbidity, sadness, or gloomy mood (emojipedia).



(Musical Notes) The emoji of three eighth music notes or singing words. Often put next to the words quoted, suggesting that they are part of a song (emojipedia).

5.5.8 Flags ()

This category includes all countries of flag emojis. That is only used to represent their country and show patriotism. Generally, it is used on occasion on Republic Day and Independence Day.

5.6 Communicative perspectives of Emojis in Interpersonal Communication

Emojis are often used for text communication. Emojis have different communicative perspectives, which make it unique and communicable. In order to understand the different perspectives of emojis-based interactions, the researcher has taken two fictional characters' conversation as an example.

5.6.1 To indicate feelings during text

Users use emojis to describe affective conditions such as joy, depression, rage, dissatisfaction, etc. This function is iconic rather than pragmatic, according to Dresner & Herring (2010). Users can choose from a variety of emojis to denote different facial expressions, which are usually associated with certain emotions, including smiling or frowning faces, indicating either happiness or sorrow. However, since emojis are used freely, it is important to remember that they serve as deliberate communication symbols of emotion and not inherently actual emotions or facial expressions. For example, If one uses smiling emoji () to indicate happiness, whether or not the other takes on the same context and level depends on the understanding of the users, the situation, and the subject. Therefore, the meaning of emoji depends and is related to the emotion expressed in the text expression.

5.6.2 To indicate approval or rejection predictor

Emojis can be used to show the acceptance or disapproval of the messages of other participants. The thumb-up () is the most common emoji used to display approval. For a partial example, this emoji functions in the same way as the "like" button on Facebook and other social network platforms so that users can express their support for and appreciation for the quality of participation by other members (Al Rashdi, 2015). For example,

A: 🍆

B: 🖐️ 🖐️

A: 🛍️

B: 👍 👍

5.6.3 To indicate a response of thanks and appreciation

This role applies to the use of emojis for thanks and compliments. In other words, emojis are used alone to replace an intended verbal response to an expression of thank you. Emojis are used as a symbol of gratitude. For example:

A: 🙌 🙌 😊

B: 🙏 🙏 🙌 🙌 😍 😍 😍 😍 😍

A: 🙌 🙌

B: 🙌 🙌 🙌 🙌

5.6.4 To indicate the opening and closing of the conversation

Emojis are also used as tools for starting and completing discussions. It is used in openings and leave-taking rounds, alone or with messages. For instance, A comes from the chat corpus of the group. B attempts to start a conversation with other members of the community in this group. During his early communication, he/she would use emojis with text.

A: 🐰

B: 🐰

The closing sequences of the communication would usually be initiated by one group member who announces a reason for ending the conversation, usually as an external obligation to leave, such as having to go to bed or dinner. Emoji are often used in closed pages, sometimes as a diversion where the defendant sends similar emojis, establishing a bond of common ground and partnership. For example,

A: 😞 🤔

B: 😞 🤔

5.6.5 To indicate celebration

Emojis allows users to say those things that may not be able to do in spoken language when communicating. Some studies have shown that emojis are used to celebrate and

B: 😡😈

5.6.8 To indicate of Replacement of lexical objects

Some of the distinguishing features of emojis are the replacement of terms, ideas, and occasionally suggestions. As previously mentioned, the emoji keyboards now give users a range of emojis. Which represent various items such as individuals, objects, nature, etc. in most smartphones. Users creatively use these emojis not only to communicate emotional symptoms but also to change the lexis. For example,

A: thr 🍷

B: 🖐

A: 📞

B: 👍

5.6.9 To indicate indexical representations

Users use emojis as index signs to link a textual comment with an image, a video, a website connection, etc., sent before or after that time. Often emojis are also used to replace indexical terms like 'this,' 'these.' The commonly used emojis for this purpose are those that display the index finger up (👆), down (👇), right (👉), or left (👈). For example,

A: The cloud has just passed away 👆

B: 🤔Where is this?

A: 👉

5.7 Placement of Emojis during Communication

Provine et al. (2007) analyzed the positioning of emoticons on four Websites for communication. The findings revealed that 97 percent of the emoticons in the data appeared before, after, or in the middle of sentences at sentence pauses. Similarly, Garrison et al. (2011) studied the use and position of emoticons in instant messaging. They found that end of a sentence was the most common position to use emoticons, preceded by the start of a sentence, alone then and finally alone. Besides, Al Rashdi (2015) examined the placement of the emojis in whatsapp interaction and worked on 4369 emojis. This study also found similar results. Based on the above and other related studies and in-depth interviews with experts and field observation, the researcher also found the similarities of placement of emojis. The research has found that most emojis are used in the last of the sentences and without a sentence, which is

similar to Rashdi's (2015) and Garrison et al. (2011) study results. The following table from Garrison et al. (2011) study defines and explains these placements with real examples:

Table 5.3: Emoticons position in instant messaging dialog status

Placement	Definition	Example
End	The emoticon appears last in pronunciation.	You are welcome to come :-)
Start	Emoticon appears in first pronunciation	:-) thanks a lot
Middle	The emoticon midphase appears, separating the two segments.	I've been bitter all night :-P and go to bed early, or study or anything
Alone with	The emoticon manifests itself at a different turn but is associated with a previous or subsequent turn by the same negotiator.	(negotiator) :-) (same negotiator) Can I try to finish my peeper real quick?
Alone	the emoticon appears as itself.	:-D

Source: Al Rashdi, F. (2015)

The following table from Rashdi's (2015) study summarize the result of emojis placement during communication:

Table 5.4: Emojis frequency based on placement

Placement	Start	Middle	End	Alone with	Alone	Total number of emojis
Frequency	268 (6.1%)	224 (5.1%)	1953 (44.7%)	325 (7.4%)	1599 (36.6%)	4369

Source: Al Rashdi, F. (2015)

The most frequent placement of emojis, 1953, has found at the end of the speeches. When used in this case, they either replace punctuation or are used with punctuation. Furthermore, it can be attributed to the high frequency of this position that emojis in this position generally function as contextualization signs indicating the meanings of the previous text. The second most popular position in 1599 (36.6 percent) is that of "alone" emojis with no texts. Provine et al. (2007) refer to naked emoticons in this position. They find that such an emoticon is often an answer to an earlier message. Because emojis are representations of many objects and ideas, they have been used alone. This research has been used not only as an answer to previous textual answers but also as a response to emoji visual curves.

Three other positions are fairly rare. Alone appeared 325 (7.4%) emojis as separate turns but have combined with a previous or a later turn. This form of emoji is similar to the one at the start or the end of a sentence, but the difference is that it is put alone as a separate switch. Emojis that occur at the beginning of pronunciation or turn

sender regrets that he has set the alarm too early. The meaning of Emojis is approximate, “*Sorry! I love you, though!*” Using emojis instead of words adds to this apparent apology a playful aspect (Tully, 2013).

Often, a person who is not in a conversation does not clearly understand the intended meaning of an emojis. For example, you cannot readily understand the meaning of emojis in this next text figure without being in conversation or having proper background information.



Source: <https://www.academia.edu/7722030/Pragmatic>

Figure 5.23: Example of text and emojis conversation message

The text above shows that the sender, in blue, tells the friend in gray, that an unknown whom you are not interested, is asking for the number. The friend reacts with different 'omgs' and the sender sends three emojis of a woman who makes an X across her face. The 'X' is intended to indicate its lack of interest in the person who requested his number. The next bunch is a thumb down, followed by three strong arms, three monkeys, one cat, and one fantasy, both surprised, a kiss face and a fearful face. This emojis collection reflects the overall feeling of discomfort and rejection for the strong demand of the man (Tully, 2013).

Emojis are sometimes sent just to receive attention. Note the time marks on the following text messaging:



Source: <https://www.academia.edu/7722030/Pragmatic>

Figure 5.24: Example of text and emojis message

The message has not been exchanged until about a few minutes have passed and then a new timestamp appeared in iMessage. In this way, the emojis acts like Facebook's poke feature, a way of telling someone that an answer is not needed. Instead

of words, emojis are also sometimes used. The following text replaces the word "yes" with the thumbs up. Since this is a pictogram of a gesture, we can conclude that this emoji has the same significance as that implies when it is done physically. So emoji means "yes" in the figure below. Although in English, emojis have a lot of functions, it is used mainly because it saves time, is convenient to write, attractive and more fun during communication (Tully, 2013).

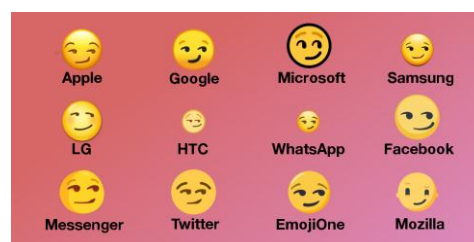


Source: <https://www.academia.edu/7722030/Pragmatic>

Figure 5.25: Example of conversation with approval emojis

5.9 Emojis with different vendors that causes misunderstandings

As with traditional characters, the Unicode Consortium provides a worldwide text-encoding standard for emoji characters. Each emoji character is given a code point and a name by the Unicode standards; however, it is not likely to be recognized by emoji characters. Therefore, an emoji transmits its meaning as a character of the picture through its graphical appearance to an object. In addition, the Unicode Consortium does not standardize graphics for emoji characters. Instead, a font renders the appearance of an emoji character. Emoji fonts are fundamentally different to each technical supplier. It ensures the emoji looks different on different vendors' apps or applications. In other words, if people use apps from different vendors, a recipient will see specific emoji renderings while interacting with emojis than the sender for example:



Source: <https://blog.emojipedia.org/emojiology-smirking-face/>

Figure 5.26: Smirking face emojis by different vendors

The figure above shows the emojis of 'smiling face' in various vendors. Smirking face debuted in 2010 with approval from Unicode 6.0. In 2008, Apple included emojis as part of iPhone OS 2.2 in its initial version. The character sports a knowing smile on the major platforms on the left side of the face, though its length and sharpness vary widely. For example, the smiles on Google and the Smirking face of Microsoft have softer curves, depicting a shy, child-like smiley. Facebook and LG put

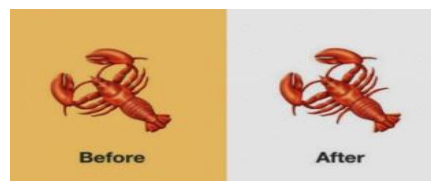
out eyebrows while the eyes look straight ahead, while Mozilla alone shows the other smiles impishly squinting to the left. In 2015, Snapchat brought Smirking face into more prominence when it launched Friend Emojis; this feature enables users to use emojis to symbolize their friendship statuses to manage their contacts with the messaging app. The meaning of smirking faces, *"You've been one of your best friends ... but they're not one of your best friends. You're not sending them many snaps, but they're sending you many"* (Snapchat, 2015). Smirking face, Snapchat means that the imbalance of the Message is a dirty little secret that a favored friend may enjoy.



Source: <https://listverse.com/2018/04/06/top-10-emoji-that-caused-controversies/>

Figure 5.27: Example of Google's Burger Emojis

This is an emoji of a burger designed by Google. The cheese position was incorrectly placed. On this retweeted over 17,000 times with 1,500 comments arguing the exact status of the cheese. This indicates that many people really care about small details like this, even though they seem stupid.

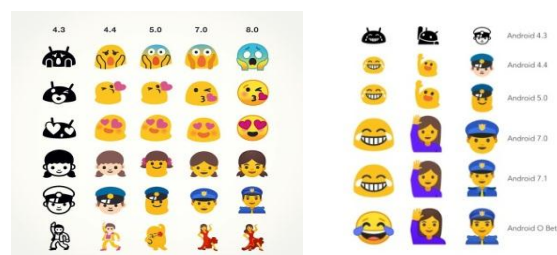


Source: <https://listverse.com/2018/04/06/top-10-emoji-that-caused-controversies/>

Figure 5.28: Example of Emojipedia Lobster Emojis

The lobster emoji also became a controversial issue in 2018 due to their legs. On social media, local people protested the anatomic mistake in their favorite lobster's emoji.

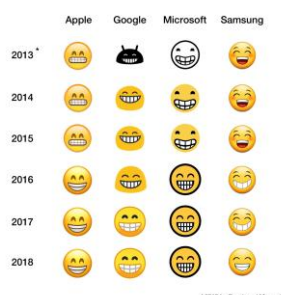
However, vendor emojis differences describe only one part of the emojis ecosystem complexity. Additionally, there is the fact that over time vendors keep updating their emojis fonts with other operating systems or app updates.



Source: <https://blog.emojipedia.org/emojiology>

Figure 5.29: Examples of Android system emojis

All of the above, emojis are an example of the Android system. This includes Face Screaming in Fear, Face Blowing a Kiss, Smiling Face with Heart-Eyes, Woman Pouting, Man Pilot, Person Dancing + woman dancing, Face with Tears of Joy, Person Raising Hand, and Police Officer. It shows how Android replaces emojis with its updated different versions from 2013 to 2018, which sometimes also changes the meaning of emojis.



Source: [emojipedia](#)

Figure 5.30: Example of grinning faces emojis from various vendors

All of the above, emojis are an example of emojis grinning faces from various vendors. That all are the happy-looking smiley, showing teeth face, which shows the expression of happiness. It looks so happy and kind that it is almost used in cynical or ironic terms just in smiling, cheerful and exciting holidays like this. The figure shows that different vendors change their emojis design from time to time, which also changes the meaning.

5.10 Chapter Summary

This chapter begins by introducing digital non-verbal cues, which have become the language used in technology-mediated communication. In this chapter, the researcher has discussed how the advancement of technology created a substitute for

nonverbal gestures as digital non-verbal cues 🙋; and provided a new advanced pattern for interpersonal communication. Then, it discusses the various categories and

functions of the Non-verbal cues 🙋. Based on the many studies reviews, this chapter reported various perspectives of Non-verbal cues (emojis) used in technology-mediated communication for interaction. Finally, the chapter describes variants that are in the design of the non-verbal cues (emojis) but have the same meaning. This sometimes became the reason for miscommunication.

CHAPTER SIX

Textisms in Digital Interpersonal Communication: In context of Techlingo or Communication

6.1 Introduction

*“txtin iz messin
Mi headn 'me Englis,
try2rite essays,
they all come out txtis.
gran not plsed w/letters shes getn,
swears i wrote better
b4 comin2uni.
&she's African”* (Crystal, 2008).

The poem received first prize in the text-message poetry competition of the Guardian newspaper, titled "New Art Form," in which participants were expected to write poems within a range of 160 characters. Hetty Hughes, a 22-year-old student of undergraduate peace studies, wrote the poem. He dedicated this poem to his grandmother. The poem was chosen from over 7,500 entries in the competition. The poem introduced various forms of text messaging, such as lack of capitalization, abbreviation, simultaneous words, and non-standard orthography (spelling) (Crystal, 2008).

Textisms are usually used during text messaging and instant messaging. Nowadays, people text each other through various applications used by computers, mobile, and internet. Hence, textisms invention and growth depend on technology and creativity in text communication. Technology and creativity in messaging have created a new form of language, called textisms. Collins English Dictionary based textisms means “a word or abbreviation typically used in a text message.” Textisms, according to Thurlow, are the new language of text communication, which involves the use of shorter words or phrases (Thurlow, & Brown, 2003). This also involves G- clippings, letter/number homophones, misspellings, other clippings, acronyms, initialisms, etc. According to Singh (2015), 31 percent of people send 100 plus text messaging every day, and 16 percent sent 51 to 100 textisms in texts every day. Singh found that five billion text messages are exchanged for personal or business use every day (Singh, et al. 2015).

Textisms are the language used in text messages, featuring the use of abbreviated, single letters, and symbols. Basically:

“Unconventional spellings use typically in texting messages that range from lexical to morpho-syntactic to orthographic features including, but not limited to, abbreviations (e.g., SUP! “What’s up?”), non-linguistic symbols (e.g., @, +), rebus writing made of letters and numbers (e.g., CU L8R “see you later”), pruned conventional spellings, particularly through omission of vowels (e.g., gd “good,” lst “last,” and wnt “want”), slang or code-like expressions (e.g., 411 “news,” or “something new”), and emoticons and other graphic icons” (Okuyama, 2015).

Over the past decade, media reports have cast text language and online communication as a mode of "youth communication" that consists mainly of non-standard language types. Characteristically cited examples of text and computer-mediated messages, include heavily abbreviated, symbolically rich, and occasionally undecipherable sentences. The article title of Journalist John Humphrys, “I H8 Txt Msg: How Texting is Ruining our language”, provides as an example: “IMHO U R Gr8” – “in my humble opinion you are great” (Humphrys, 2007). Media reports suggest that such stylizations in everyday text language are universal. Thurlow (2006) also stated, “Mst f d tym dey usd ds knđ f lng’ge”: “Most of the time they use this kind of language” (Thurlow, 2006)

Texting refers to small-type messages sent by short message service (SMS) between mobile phones, which have become a feature of most cell phones since the late 1990s. In many European texts, the term SMS is used to describe the medium and the messages. This thesis uses the term texting to refer to both medium and language diversity. Several terms have used to describe the language of text messaging by various authors from time to time, such as textese, phone shorthand (traditional writing forms), txt, texting, SMS communication, stylish messaging forms, textisms, and generation text (Crystal 2008). For this study, the researcher has made a new terminology of all of these. The suggestive term for this study is “Techlingo.” Technlingo refers to technology-based forms of text communication done by TMC platforms (texting, emails, social networks, instant messaging, blogs, etc.) during the interaction. Means techlingo is similar to textisms.

As characteristics of the text language are unique, there is a propensity to overestimate how unusual it is. According to Crystal (2008), the combination of

standard and non-standard types is one of the most surprising features of text messages. Besides, Thurlow (2006) suggested in his study that computer-mediated communication patterns in children and young people are considered a decrease in literacy and may be associated with a decline. "Humphrys confirmed this in writing in the 2007 Daily Mail, describing the SMS as "absurd", "stubborn", and an "obstacle" to communication, and even textbooks (Humphrys, 2007), which Genghis Khan was trying to language his neighbors eight hundred years ago" (Farina, & Lyddy, 2011). This claim that SMS is an obstacle represents the text's perception as a lower communicator. It also has been suggested that an over-reliance on technology promotes a lack of communication capabilities in the younger generation (Blair, 2004), which causes language "dumbbells" and "lowering standards"(Thurlow, 2006, p. 11).

Children and youth are the largest text messaging user groups and CMCs worldwide (Ling, 2005). The analysis of 101 texts and CMC language media reports by Thurlow (2006) reveals that the vast majority of media reporting shows a negative view of the language used (Thurlow, 2006). On the other hand, younger users call it "Generation Text," "Generation Grunt," and "Net Generation," while in SMS, it has become a link to definitions such as "Blake, billed, sad shorthand" (Sutherland, 2002).

In general, Instant Messaging is assumed synchronous, as both users and all users are online simultaneously, and fast responses are standard. E-mail and text are usually asynchronous, but both could be regarded as almost synchro. Although the text does not require an immediate reply, it can be sent and reacted quickly to a word conversation. The sociolinguistic analyses of youth's text messages are increasingly evident in dialog exchanges (e.g., Kasesniemi & Rautiainen, 2002). Therefore, synchronizing and asynchronous could be viewed as a continuum more properly, with almost synchronous communication provided by text messaging (Rettie, 2009).

There has been little attempt by linguists to describe the language used in any depth or breadth of the increasing importance of Text communication as a subject of academic interest. However, the increasing number of text messages can illustrate the importance of the text. On this basis, it can be argued that it is increasingly necessary to understand how language is used via media. Text communication is not only prevalent in the personal lives of people but also in their professional and business communication. Now people can receive news updates and other information by text message, be reminded of any appointments, get the details of services and products, etc.

According to John Humphreys, at the same time, there continues the public debate on the impact of the text on the English language and child literacy (Humphrys, 2007).

A study by Taglimonte and Dennis 2008, denied Humphries 2007 and Thurlow 2006 fact, according to them, the majority of text language is the standard form and often employed non-standard forms are constructive, they provide a clear communication function and a qualified language (Taglimonte and Dennis 2008). This chapter is based on Research Objective 4 and focuses on a variety of textualisms and abbreviations that manifest as non-traditional spelling and shortening in computer and mobile mediated communication. It discusses the language of digital text messaging that is used by the younger generation. Academic media research ranges from technology to ethnography. It demonstrates its mediation and alteration of established social practices such as gifts, the transformation in the culture of youth, and its effect on people's lives, including changes in text-led interaction patterns. In the popular debate, however, linguistic interest is limited with regard to the same aspects referred to above. Its primary focus is largely on all textisms (abbreviations, orthographer variation, initialism, phonetic etc.) and medium ellipses. Although of interest, these features only scrape the surface of a real linguistic interpretation of texts. In corpus linguistics, speech analysis and language variation study, the text remains largely uncharted (Tagg, 2009).

In areas where language has position-specific variations in place of text, that text communication is defined as a linguistic variation. The importance of acknowledging changes in any language description attempt is now widely accepted, with linguists like Biber et al. (1999); in addition, Carter & McCarthy (2006) also cover spoken and written variations in their grammar. This implies the requirement to use natural or certified data to base language descriptions. In view of the increasingly popular and academic interest in the text, this corpus study contributes to our understanding of language variability. It draws the attention of corpus linguists and linguistic researchers to this important medium. In practice, this chapter focuses on new texts used in text communication based on existing literature, such as spelling variation and a common language spoken. This chapter also focuses on the principles and functions of spelling variation that explore current and historical spelling practices in formal and informal texts. This chapter is based on objective four of this research study.

6.1.1 Mediated writing, its circumscription, and regulation in text communication

The more playful and significant offensive innovations are seen in text communication (SMS) are extreme in the continuum of written regulations (Sebba, 2007, p.47). Writing has a very special status, institutional symbolism, and regulatory link to the modern nation-state in schooling, linguistic codification, and printing (Blommaert, 2010). The rationale is whether the option of spelling in digitally mediated arbitration is linked to previously unanimous opposition to spelling in standardized forms prescribed by authorities; because in general, there is a codification and transmission project related to the development of Europe from the 16th to 19th centuries (Mugglestone, 2006).

The orthographical text, iterated in mundane but omnipresent acts of meaning in different ways, seems to have re-oriented a pre-existing, relatively sedimentary solution through which the written word. Orthographic text, compiled into mundane but omnipresent acts in a variety of meanings, re-orientates pre-existing, relatively sedentary solutions, through which codified the written word and sometimes their spelling by prescriptive with their idealistic imitation. After Agha's argument regarding the mutual understanding as enshrined in institutions and other socio-cultural artifacts, it is possible that the processes involved in schooling, print production, and institutional deletion of the various forms have joined forces to reinforce that understanding. (Langer & Havinga, 2015)

Such an error may lead us to understand that in the default model of autonomous literacy, standard forms of orthography are the inevitable preferred and appropriate approach (Cheshire, 1982). Text phenomenon and its routine disruption of normative expectations may have revitalized this popular understanding and disturbed it. As Sebba has shown, spelling regulation in standard language forms coexists in lower regulated regimes, with some registers more strictly regulated than other registries (Sebba, 2007, p. 47). These regulatory zones remain an emergent but on going challenge, certainly in the case of digitally mediated texts. The text has been a relatively smooth literate choice system for some study participants, enabling them to have greater options, at least for some time. Text spelling choice appeared to provide another chance for others or the same people at other times in their social and biographical trajectories for demonstrators to demonstrate their standardized English, often with the corresponding assessments of deficits made by others. The picture to be

delineated with the analysis of data sets shows that the diffusion phase in disputed expectations about norms and changes in the spelling of SMS before its sedimentation into a more conventional shared understanding has been uneven. Even in less regulated areas, variational orthography can attract considerable challenges in both private and public choices and comments (Shortis, 2016).

6.1.2 Process of cultural transmission of text communication

Broader cultural transmission procedures underlying the possible historical change in the interaction between linguistic and semiotic resources, in writing, and graphically mediates. The driving force behind this inquiry is to determine what is new about such innovation in the context that, as Herring suggests, today, 'new media, text are quickly changed and are not recognized by new media of the future. This inquiry is about spelling choices in only one digital media. Lexical and spelling resources can be viewed as having a connection to the material means through which they were made and through which decisions could be motivated (af Segerstad, 2003). For SMS, given in gray-scale messaging, mandatory capitalization, 160-message character limits, metric message charge, and twelve-button text entry were common limitations in 2000 and affected the choice of all partners (Crystal, 2008). These terms were abolished in Great Britain at the same time as development in 2015, resulting in various settings of expenses and constraints such as default intrusive spell pressure and automatic text correction from smartphones (Shortis, 2016). On the other hand, social orthographic choice conventions established under the subsequently substituted conditions of background pressure may continue to exist without that original stimulus. As in the case of < U>/<u > for < you >, there were specific accessories on the early double keyboard which were frequently used before SMS, and now they remain beyond twelve-button text entry. Several contextual pressures may motivate choice. In the alternative and additional waves of socio-technological innovation and social development, the use of these forms can be used to subsume a certain digital medium. For example, in 1998, the 'homepages' of young people appear different from the template entry determined by new social media such as Facebook, with its commercial gain shaping (Boyd & Marwick, 2011). These conditions of accelerated change lead to a related question. How do we find the foundations to a deeper relationship in the commentaries on "breaking news" contained in speeches in the public sphere that describe and evaluate these changes? At a time of rapid social and technological

change, which are the deeper processes behind episodic comments in news articles and representations of popular culture (Thurlow, 2007)?

The media has often focused on the goal of moving a certain CMC medium, which compares the deficit based on the criterion derived from the oscillation memorial, on the basis of full conformity to the standard language (Shortis, 2016). Sebba has noted that it is of great interest to study non-standard spelling that orthography is generally so highly standardized and strictly regulated (Sebba, 2003, p.151). Spelling is reported to be relatively easy compared with lexis, grammar, or pronunciation to regulate. In addition, even standardization and regulation are considered as a synonym. Such a consensus has been stabilized in what Kress calls 'the high print age,' but these institutions are influenced and changed over a longer period of time (Kress, 1998). The Aga's realization about Mughalstone figures has shown such a change in the discourse of consensus, and in the 19th century, the pace of recording pronunciation was recognized as a prestigious achievement (Mugglestone, 1995).

A wider array of choices than prescriptive dictionaries is designed as precise Standard English writing informal institutional contexts can be used by participants to decide on their spelling practices in a text if they are available for these ideal options because they are contingent and diverse in their choices. There may be a broad array of spelling choices based on past and tacit orthographic events outside of the representation of standard set forms such as folk culture, commercial features, linguistic literature and linguistic landscapes, occupational specialties, and global interrelated influences (Thurlow, 2011). During the last centuries, the spelling asymmetry established by relays of the national language, education, and print production is interrupted but not erase by these changes in many contexts (Blommaert, 2008). The only literary performance available can be a heterographic practice in text messaging, as analyzed in text from African contexts (Blommaert, 2013).

6.2 Textisms in text communication and linguistic corpus

According to the sociological model of spelling the text, spelling in the text is theoretical and meaningful, as in other fields. Studies, based on text message data, suggest that the text represents an appropriate constructive response to conservative text characteristics. It was found in medieval handwritten manuscripts, early printing, Victorian letters, fanzines, child writing, and other forms of communicating electronically (Tagg, 2009).

Orthographs that use an alphabetical system do not reflect accurately how the language sounds, but to the extent that the correspondence between graphics and phonemes exists to varying degrees in each language. However, there are few one-to-one letters in English. The different pronunciations, as well as the graphic representations of other orthographic, are high on the hit list of all spelling reformers. English language speakers, however, recognize and use graphics to help orthodoxy and pronunciation. Given that many variations disappear after the morphemes around them are taken into consideration, the spellings of phonemes can be described as different. Although in the current English spelling system, regional, social, or individual changes in pronunciation unaccounted. In speech transcripts, novels, and informal domains, phonetic respell, such as text to indicate informality or regional emphasis, include standard contractions such as can't or m2, colloquial contractions (Tagg, 2009).

Colloquial contractions and respellence mean by reflecting the spoken language of people, thus evoking aspects of identity and informality by writing (Androutsopoulos, 2000). In other words, when spoken word is reflects certain pronunciations or changes of speech and sounds. The use of the dialect of an eye¹, which does not match certain accents, indicates that the lack of education is perceived as errors by those who write what they hear (Preston 2000).

Colloquial contractions in writing, like 'ya' or 'gonna' reflect informal pronunciation and are reduced or signed. So socially charged speech, as well as anger and affection that is, it sets a tone. Examples of contractions may include shortening (*you* to *ya*) of words or combining two words (*going to* to *gonna*). However, many written forms, according to Crystal (2003), differ from standard contractions because they are not formally recognized in dictionaries or schools and do not use apostrophes that sometimes include only one word (Crystal, 2003). Weber's (1986), investigation of colloquial contractions limits the use of materials found in American English, the source of which is believed to be over 20 years old. However, it still appears that the British still represent patterns in English today (Weber, 1986). The following table shows the structure and type of colloquial contractions based on Weber's (1986) study that is now used in a new form of text communication.

¹ Eye dialect involves phonetic orthodoxy and is used to capture standard pronunciation more regularly rather than to indicate unstandard regional or informal pronunciation. For example, *sez* for *says*.

Table 6.1: Structure and type of colloquial contractions

Type	Colloquial contractions	Structure
progressive verbs	in = ing gonna/goin = going to	ending of the words, for example, something, building 'goin' into the current continuous, rarely used
auxiliary verbs	does = -'s did = -'d do = da have = a	what's = What does how'd = How did whadda = What the coulda= could have, shoulda=should have, woulda= would have
catenative verbs	go to = gotta have to = hafta want to = wanna	The deletion of the ts reflects an informal rule of regular pronunciation (that is, the elision of /t/ between two vowels following the sound /n/ as in winter or without /n/ as in beauty, represented by Weber)
personal pronouns	him = 'im her = 'er them = 'em you = ya, yuh, y'	Reflects the regular removal in the rapid informal speech of /h/ previous unstressed vowels. The more frequent is already, you appear in conversational terms like y'know and y'see. Crystal (2003) lists "ya among other forms which represent elision in colloquial speech including dunno, yeah, yup, c'mon, trific or triffic, nuf or nuff, em, and innit—the last sometimes used as a rhetorical device by humorous writers as a light-hearted way of making a point'.
others	of = a give me = gimme let me = lemme	lotta (lot of); coupla (couple of); buncha (bunch of); sorta (sort of); kinda (kind of); outa (out of). The final consonants of the verbs shall be removed, and the doubling of the consonant shall be attributed to the rule, which specifies the rule.

Source: Weber, 1986

Although colloquial contractions are uncoded, and follow, recognize models but not always. "Use of 'a' in representing 'schwa,' to take Weber's (1986) example, is now a strong pattern in English conformed to in 'gonna,' 'gotcha,' 'kinda' and in the advertising slogan (Tagg, 2009) *Drinka Pinta Milka Day*" (Carney 1994, p. 447). In gotta, colloquial contractures can be seen as a further way of conforming to common spelling patterns where the consonant duplicates the previous vowel conventionally as short. These patterns are reflected in the text, as described later (Weber, 1986).

Regional respiration that is colloquial disapproval is another attempt to mimic informal speech. Regional respellings are representations through spelling of regional varieties, described as different regional repellents and literary dialects. As Weber (1986) explains, there are only a few certain rules, but recurrent strategies that include omitted and moving sounds from ‘*some’ers*’ for ‘*somewheres*’ and ‘*mout*’ for ‘*mouth*.’ However, other responses may be better known as colloquial responses, although a non-default pronunciation is proposed, with no regional connection, nor is the word short. For example, *yeah* or *nope*, longer than *yes* and *no*, widely used in informal speech. Weber (1986) is also linked to an estuary or cockney² English as a colloquial contraction. However, considering this precaution, it is useful to distinguish spellings from those generally found in conversational English in a text, which suggests regional variations (Crystal, 2003).

6.2.1 Words shape

The statement that writing cannot simply be seen as written speech is generally recognized among linguists, but there is a tendency between reformist spelling and the public to conflate spelling as nothing more than sound representations. Despite the lack of one-to-one correspondence, it is possible to add English sounds and symbols, as Carney (1994) showed in his systematic survey, factors other than the sound system shape the spelling system. As Kress (2000) states, orthography (spelling) can be direct transformations on paper from the outside world. In children, it is also important to understand the form of overall words that Kress illustrates by adopting a beautiful, careful style in a very different context to her scrambled write elsewhere by a child. Therefore, spellings can, not be taken as an attempt to reflect words, but come from the unconventional form of words (Kress, 2000).

6.2.2 Phonetic Orthography

The aforementioned eye dialect is used as phonetic spelling. It involves irregular standardized spellings with letters that correspond more regularly to the particular sound and therefore are more likely to be spelled in irregular terms with common words such as *frum*, *cum*, *tu*, *yu*, *ur*, *enuf*, *sez*, etc. In other contexts, phonetic spelling creates modern, dynamic, and attractive effects only through the visual effect of its deviation from expected orthographies. Many brand names include the words

² According to Crystal (2003), suggests a distinct regional or class pronunciation, but could also be described as an informal (regionless) one example includes *oh gawd*, *o god*. *oh gawd* is less than *o god* and never appear in a liturgical manual.

'*graphem substitutions*' called by Androutsopoulos (2000), replacing one letter with another such as *z* replace *s*, *k* replace *c* (Crystal, 2003).

Contacting the reader can be a challenge due to phonetic spelling. In the advertisement, it aims to attract consumers in publicity which it does not only create modern images of products through spelling, as Jaquith (1976) suggests but also because distinct unforeseen spelling contrasts the surrounding text, disturbs the scanning of readers and thus catches your eye (Jaffe 2000). In other words, their impact is not due to their phonetic representation but rather to their deviation from expected rules. Another example of that is its role in Androutsopoulos (2000) underground music magazines:

“Use of X to represent ks, cks, and gs in English and German words such as “punx, thanx, sonx (songs), lyrix and demnax” position texts in the subculture and mark them as radical, tough and original” (Androutsopoulos, 2000).

However, in this case, phonetic spelling not only affirms the group identity but also creates deviance by marking the subculture as distinct or contrary to the mainstream ideology. Text adopting these forms of repelling likewise affirms that, as described in this study of the text, membership of text networks differs from the anticipated standards.

6.2.3 Technological text and shortcuts

Variation in the spelling of manuscripts in medieval Europe is encouraged not only by the storage of information and by the writing of texts (Bradley 1919). For example, early printing was a leader in standardization of orthography and punctuation. Elizabethan printers also changed their orthography due to space constraints and costs like scribes who were paid by the inch and invented longer versions of words (for example, *pauvre* for *povre*) before them (Baron, 2002). For example, the need to justify the right margin of a printed page and to ensure that text fits the page prompted the application of an elaborate abbreviation and variable orthography system, for example, *busy* could be spelled *busie*, here as *heere* (Baron 2000); *on* as *onn*, *hon* and *ho*; and *say* as *sai*, *say*, *saie*, and *sei* (Baron, 2002).

A more recent example is the telegram, whose cost was calculated by the number of the word it contains, promoting extremely short styles. Abbreviated forms, however, occur more frequently than could be expected in a wider range of current text. Although the general number of English abbreviations is lower in tens of thousands of

cases, it is not known how the Acronyms, Initialisms & Abbreviations Dictionary listed over 586,000 entries in its 2001 edition and to what extent specific shortcuts, like AIDS, laser, UNESCO, yuppies, and BAA, are included (Crystal, 2003, p.121). The other reasons for abbreviations are the value that the linguistic economy places on or the desire to achieve concise styles, to transmit social identity or to form part of the social group to which the abbreviation belongs. ROM, RAM, DOS, and WYSIWYG, for example, are informaticians fields, while science, technology, and cricket, abbreviated forms in specialist fields such as drug trafficking, armed forces, and media. However, abbreviations also follow some formal models, whether involving technique, domain, or motivation.

6.3 Various Forms of Textisms

The main idea is that texts and other technology-mediated communication forms contain an abundance of dark abbreviations and acronyms because Text messages prefer to include simplified forms. The use of multiple complex keystrokes on most technology-mediated communication is necessary for writing a text message; because combined with an almost synchronous answer, time pressure makes it likely to be shortcuts. However, many textisms and shortcuts are used in digital written formal and informal communication. Such as *“shortened words (for instance, mon on Monday), removed letters (for example, goin to go) and accent stylizations (for example, going to / go to) are common, whereas in the Oxford English Dictionary “cos,” “luv,” “wot,” and “ya” are common”* (Farina, & Lyddy, 2011). The following are forms of textisms for communication:

6.3.1 Letter and Number Homophone (Alphanumericism)

According to Thurlow & Poff, homophone also termed as logograms, phonetic reductions, or syllabograms. People use a letter with numbers to represent a word or part of it (Thurlow & Poff, 2013). In contrast to the overall appearance of a homophone, the pronunciation of the individual letter/numbers is important. For cited example in the instant messaging and SMS is:

- cu l8r – see you later. This sentence is a combination of letters and numbers. Which demonstrates the letter and number homophone, and it is termed as alphanumericism.
- cu- see you. This denotes only a letter homophone or alphalism.

More sentences and words also cited on the instant messaging and SMS such as “*wuu2* – *what you up to*”, “*ne1* – *anyone*”, and “*BCNU* – *be seeing you*” (Plester, et al., 2008; Thurlow & Brown, 2003).

6.3.2 Shortenings

Shortens are words that have missing end letters (Thurlow & Brown, 2003). Days and months are often shortened on instant messaging, chatting, SMS etc. For example:

- “*sun*” represents as “*Sunday*”.
- “*feb*” represents as “*February*”.

6.3.3 Contractions

According to Crystal (2008), Contraction is words with omitted middle letters, often vowels, since consonants provide more information than vowels in English. Plaster, Wood, and Joshi's (2009) example, (2009), including:

- “*txt*” denotes “*text*”
- “*hmwrk*” denotes “*homework*”

Additionally, contractions can be categorized as short-form words, e.g., use “*don't*” rather than “*do not*.”

6.3.4 Clippings

Based on Crystal's (2008) study Clippings may be classified as G-clippings and other clippings. Some words fall under the category for which the last “g” and the last letter are omitted. For example:

- “*goin*” denotes “*going*”

Clipping usually also omits the last letter of a consonant e.g.,

- ‘*wil*’ denotes ‘*will*,’ and silent vowels e.g.,
- ‘*hav*’ denotes ‘*have*’ (crystal, 2008).

6.3.5 Initialisms and Acronym

Initialisms and Acronyms generally include shortening words to their initial letters (Crystal. 2008). initialisms words are used for informal communication such as,

- ‘*omg*’ used as ‘*oh my God.*’
- ‘*bf*’ used as ‘*boyfriend*’.
- ‘*IMHO*’ used as ‘*in my humble opinion.*’
- ‘*ttyl*’ used as ‘*talk to you later,*’

While acronyms are a very formal form of shortenings for example,

- ‘*NATO*’ used as ‘*North Atlantic Treaty Organisation*,’
- ‘*radar*’ used as ‘*Radio detection and ranging*.’

But some others (Bieswanger, 2008) said that acronyms are letters pronounced as one word, and alphabetisms pronounced letter by letter such as ‘*TV*’, ‘*FBI*’ or ‘*BBC*’ (Bieswanger, 2008). However, these and many like those forms are not unique for computer-mediated communication, it is general and considered according to time, and now as a pattern (Crystal, 2008).

6.3.6 Non- conventional spellings

Non-conventional spellings are also known as non-standard spellings. Unconventional correspondence in a language is legitimate but does not constitute the conventional orthographer (spelling) for that particular word for example:

- ‘*sum*’ denotes ‘*some*’,
- ‘*thanx*’ denotes ‘*thanks*’, and,
- ‘*k*’, ‘*skool*’ denotes ‘*school*’ (Thurlow & Brown, 2003; Thurlow & Poff 2011).

6.3.7 Accent stylizations

According to Plester et al. (2008), Accent stylizations, generally classified as "youth code." This refers to the words spelled according to the informal regional discourse, for example;

- ‘*wanna*’ denotes ‘*want to*’,
- ‘*gonna*’ denotes ‘*going to*’ and,
- ‘*dat*’ denotes ‘*that*’ (Crystal, 2008).

Accent designs are often also used as humorous alternatives (Thelwall, 2009).

6.3.8 Onomatopoeic spellings (misspelling/typos)

Onomatopoeic spellings refer to the imitation of a sound which based on the without word sounds, for example, the sound of a laugh (haha), cry (uhmmm), and others ‘zzzz’ etc. It is the process of forming a word, which describes a sound, as it is pronounced. Inclusion of animal noises as ‘*oink*,’ ‘*meow*,’ or ‘*mahow*,’ ‘*roar*,’ and ‘*chirp*’ are commonly found in onomatopoeias. Onomatopoeia can vary between languages; it conforms to the wider linguistic system to some extent. In this sometimes, the apostrophes are also missing e.g., “*cant*,” misspellings/typos, e.g., “*are*” as “*our*,” and hybrids, a word or utterance that uses two or more of the above-mentioned categories.

According to Crystal, abbreviations, and shorthand used by people not comes only in one form of it. It sometimes includes a complete word, a clipping, a homophone number, initialism, and a homophone letter (Crystal, 2008).

6.3.9 Typographic Symbols and signs

In general, the use of emoticons is overestimated but occurs. Emoticons are kinds of pictograms, typically transmitting an emotion or facial expression, although objects can also appear (Crystal, 2008). Dresner & Herring (2010) provided an example that includes ‘:-)’ (Smile) and ‘<3’ (a heart). Emoticon glossaries contain a host of shapes, most of which are not found in actual text analyses (Crystal, 2008). According to Baron (2004), emoticons are modifiers of text. Neviarouskaya, Prendinger, and Ishizuka (2010) considered emoticons as visual cues for face-to-face conversation. On the contrary, type symbols (emojis) are single or multiple characters representing entire words (Bieswanger, 2008). One on many "x's" is popular examples of a kiss, or "zzzz" to suggest sleep, fatigue, and boredom (Farina, & Lyddy, 2011).

6.3.10 Use of capitalization purposefully

Objectively misused capitalization is often used when words or messages in every cap are typed. This method shares emoticon characteristics. Usually, this expresses an emotion. It is often used with volatile emotions like anger or arousal. The use of all-installed letters is often interpreted as shouting for whole phrases or paragraphs. Sarcasm can also be expressed by the exaggeration of certain words and by an emotionally limited amount (Drum, 2015). The following are the Purposefully Misused Capitalization Examples:

WHAT IS GOING ON HERE?

WHAT to DO with HIM?

The dynamite goes BOOM.

I can't believe you just said THAT!

6.3.11 Purposefully misused spelling

The abbreviations are different from the misused orthography because the focus is not upon shortening a word. Often these orthography errors are used for emphasis rather than minimization. It is often used to create an emotional perspective like the previous technique. These misused orthodoxies are for exaggeration's sake. Some of these exaggerations add an onomatopoeia effect or a nice phrase. Such techniques are often seen when animals or objects are individualized or when the emphasis is

expressed in a general explanation. Any emphasis on text breaks the Standard English spelling and grammar rules because the general representation is that the accent is not always a property of the language (Drum, 2015). The following are the example of purposefully misused spelling:

Oreeeaallllyyy?

Thankuuuuuuuuuuuuuu

I seez ya!

So i loooooove him!

Took you loooooonnnnnngggg enuf.

Waaoooooooooooo!

Whaaaassssupppp.

Hmmmm, I think believed right. Sometimes it is used to denote or to fill a pause

WOOOOOOOHOOOOOOOOOO. Sometimes it is used to denote or to fill a pause

6.3.12 Purposefully misused punctuation

Punctuations are used intentionally to emphasize the statement. Similar to emotional lessons, this tool allows emotional expression of what is not always possible in a limited format like Twitter. Although the ability to portray an emotional state by many characters is in contrast to shortening techniques, its utility can still be seen in a limited character medium such as a tweet. The following example shows how misused punctuation can contribute to the picture of confusion, excitement, and sarcasm by punctuation.

Examples of Purposefully Misused Punctuation:

Well duh.....

What did you ???

I can't believe that just happened!!!!?!?!!

Yeeeeeeeeehaaaw!!!!!!!!!!

Each is classified as being textisms. Which are a violation of rules in Standard English for orthography and grammar? As a result, the different input from each textisms can be tested individually. These classifications permit preference to be tested between textisms. An advantage or preference for each texture provides insight into the density of using or not using each tool in message design. The audience can also make provision for a direct examination for each type of textism as permissible. Any member

of the public cannot categorize himself as a user of textisms but can differ negatively from neutral to positive, based on the kind of textism used. If both users and non-users can accept, text emoticons, then this difference can be tested (Drum, 2015).

6.4 Textisms in Digital Interpersonal communication

Textisms are a simplified version of a word or phrase which is used mainly in writing to represent the entire version during digital interpersonal communication. The textisms text is almost a dictionary of its own. In English text messages, it seems that many ways of abbreviating words have become common. With each generation, the text changes, and a completely new set of abbreviations emerge.

The emergence of a new texting language, tailored to the immediacy and compactness of these new communication media, came with the popularity and increasing use of online text-based communication. Textisms and their different forms are used heavily in many online communications, including Twitter, instant messaging, email, social networks, blogs, and online games. Although it seems unbelievable that thousands of texts are brief, this is true. People from different groups (teens, young people, professionals, personal relationships) use different text abbreviations.

Initial letters or short versions of certain words are used as text abbreviations to compose an expression, which is used to facilitate and speed up the communication of text messaging. Whereas only a small demographic used it a decade ago, and now its uses are found worldwide. With the rise of text as one of the most useful communication channels, abbreviations of text became popular in digital communication. At the time of the development, SMS had proved to be a quick and convenient means of communication. Abbreviations thus supplemented the benefits of text messages only.

In the earlier days before "unlimited talk and write" data plans, text messages were costly to send and receive and each character was precious because they were limited to 160 characters per message. It was also a laborious method to text using a regular telephone keypad, involving several key presses per character. Therefore, by abbreviating common words and phrases, mobile phone users adapt to clunky keypads and character limits. A new language of textisms has evolved into text messaging. It is becoming embedded in the culture of texting and the Internet. Despite the fact that our smartphones have full keyboards, word abbreviations are still convenient shortcuts and remain a staple in worldwide communications.

6.4.1 Language of Text Communication: A Techlingo or Textisms

Even with the most extensive research, all textisms (abbreviations) of text cannot be found throughout the world. They are innumerable, and every day they are growing. But the meanings of abbreviations in most time texts are clear from the beginning. The most common text textisms with their full forms are listed below in table 5.2 to illustrate the nature of their uses and meaning during communication. According to webopedia, (2019), the following are the most common and frequently used textisms:

Table 6.2: Various Textisms or Techlingo used during Text Communication

English words and Sentences	Textisms and Techlingo	Other various forms of same Textisms or Techlingo from related studies and survey
today	2day	
Tomorrow	2moro (C U 2moro)	2mrow, tomorw, tomoz, tomorrow, tomo morrow, mora, tom, 2mora, tomoro, 2morrow, tmw, 2morow, 2morro, 2mrrw, 2moz, 2mrw, amoro, tomorozz, tomoz
Tonight	2night (R U coming 2nite?)	2n8, 2nite, tonight, , 2night, 29t, 2nait, to98t, tonight, 2nit
By the way	Btw (Btw, can i borrow the car)	bythyway, bydway, btway,
Are you there	R u thr (r u dr or not)	ru dr
Before	b4 (let's meet up b4 the concert)	bfor, b44, bef4, bf4, bff
But	bt	btt, bth, b..
See you	Cu (I'll c u there)	cu, cy, seeu, seu, c u
See you around	c u arnd (i'll cu rond 6 o'clock)	c u and, seeu arnd, cu..ad
Hit me back	HMB Hit m bck again	ht m bck, ht mbk, hmbk
Hit me up	HMU Hit me up on waist	Ht m up, hmup, h me up
In any case	IAC I will go there in any case	in ny cse, n ant case
I Love you	ILU (I lu a lot)	Ily, 143, i lob u, i love u, i luv y, i4u, i luv u
I Am sorry	I m sry M sorry but not possible	m sorry, sry, i m sorry, sorry, SORRY, SOryy
In search of	ISO In search of my password	n search of, searching, in sch off
Just kidding	j\k (I am jst kdin for this)	Jk, jst kding, jut kdin, jst kdd
Later	L8R (the fireworks show isn't till L8r)	l8r, l8ttr, la8er, 8tr

Laughing Out Loud	LOL (lol.. whts going on)	lol
Hope to see you soon	Hop 2 c u son	
Great	GR8 (gr8 news)	gr8, grtt, g8t
Facebook	FB (Come on fb)	fb
To Be Honest	TBH (You 2 b honest for me)	2 be honest, 2b honest, 2bhst
See You Later	CUL (C u later)	C u later, c u l8t, cu l8tt, se u l8tr
Shut up	SU (Sht up ok)	shup, shtup, sht up
Be Right Back	BRB Wait ll be right bck)	B right bck, be rgt bk, b rgt bkk
Be Seeing You	BCNU (Wait be seeing u as soon as possible)	b cin u, be sein y, b cu
As Soon As Possible	ASAP (Please let me know ASAP)	asap, as son as psible, a soon a pble
Also Known As	AKA (It also kwn as textisms)	also knwn as, a knw as
Too good to be true	2g2bt (U R 2g2bt!)	To gd 2b tru, 2 gd 2 t
At	@ (C U @ noon)	at, 8t
forever	4ever (Luv u 4ever)	4ver, fver
Question for you	?4u (This ?4 u)	Qs 4 u, Q4u
Anytime, anywhere, anyplace	A3 (i can meet a3)	Anytimewhere plce, ay tme where place
about	abt (i heard abt ur 9w job)	abot, abut
All done bye bye	adbb (ok adbb)	Al dn by, ll don by2
Away from keyboard	Afk (i m afk right know)	Awy fm kybrd
at the moment	atm (atm she is there i am not sure)	a8 da moment
because	bc (i can't come bc i have work)	b/c, bcoz, cos, coz, cause, cuz, cs, cus, cz, becau, becose, becus, bcos, becoz
Boyfriend/girlfriend	Bf/gf (did lily break up with her bf)	boyfrnd, grlfrnd, bfd, gfd
Best friend forever	bff (my bff told me about the party)	bst fnd foevr, bst frd 4ver
Before i forget	bif (bif r u cmin 2morw)	B4 i fg8t
Been there done that	BTDT (i don't wnat to go to the club BTDT)	Btdt, bn dr dn dt

Call me	C m (can't talk now so c m l8r)	cll me, cl m, c me
Can't stop laughing	Csl (That video's so funny, i csl)	c9t stp laugin, cnt stp lauging
Direct message	DM (DM me the details later)	dict msg, die8t msg
Don't be late	dnbl8 (concert starts at 7, dnbl8)	dnt b lat8, dntbelat8
Go for it	G4i (U should g4i)	go 4it
Got a second	Gas (gas, i've got a question)	Gt a se2d
In real life	Irl (we should meet up irl)	in relife
message	Msg (msg me later if u want more details)	msg, msge
Please	Plz (can i borrow your computer pls)	Pls, pleasey, plez, pls, plse, plz, pse, pleas, pease
are	R (R u ok)	r
your	Ur (u left ur camera at my house)	Yr, ur,
Wait	w8 (i am w8 for u)	Wa8t, wit8
Without	w/o (don't leave w/o saying goodbye)	widout, wthout
wife	Yf (I'll ask my yf)	Yaafi, wfe
Thank you	Tq (tq for this opportunity)	10q, ty, tqq
Falling on floor laughing	Fofl (On this video people are fallin on flr laughin)	fflaugin
Congratulations	Cgratz (congo for this achievement)	congo, cograz, congtons
Hugs and kisses	h&k (gudn9tt with xoxo)	xoxo, h&k
I have no idea	I hv 9 ida (I hv 9 ide abut ur achievement)	ihv no ide, ihv 9idea
I don't know	Idk idnt kn about you	i dnt knw, idnt 99
Okay	K (Kk m comin)	Kk, okuuu, ok
Nice one	n1 (this is nce 1)	Nice 1, nce 1
No problems	No prob (No probs m coining)	Np, 9 brobs, no prlm
Oh i see	Oic (Ohh i c this is for me)	hh i c, oh isee

Oh My Gosh/God	OMG (O m g it is so beautifull)	o m g, o m goshhhh, o my godddd
Oh really	orly (ohh rlly its true)	Ohhh rlly, hh rlyyy
Rolling on the floor	Rolf (this video make you rolin o da flor)	Rollin o da flor
It's ok	sok (it's k will do)	Its kk, its okk
sorry	Sry (i am sory)	Soz, sory, sorryy
What's up	sup (wht's upp guys)	wtsupp, wtsupp
Thanks again	Thx ag (Thnxx agn for help)	10xa, thnkk agin
Too much information	tmi (2 much info for me)	2 much infrmation
Thinking of you	toy (thking f u always)	thkin of u, thkin o u
Where are you	wru	whr r u
Chat with you later	cwyl	cht wid u lt8
See ya	cya	se y, ce y.
Bye for now	b4n	by 4 nw
Be right here	brh	be rit hr
Be right there	brt	be rit thr
Good night	gnite	Gud nt, gd n9t, gdnite
Got to go, bye	gtgb	gt 2 g, by
Have a great day	hagd	hv a gr88 day
Got to go	Gtg (we'll talk later,gtg)	g2t, gt 2 go
Wait a second	Wt sec	wt a 2nd
Take care	tc	tk care, tk c
Talk to you later	ttyl	tlk 2 u lat8
Talk to you tomorrow	ttyt	tlk 2 u 2moro, tk 22morw
See you soon	sys	c u soon, c u sn, se u soon
Talk at you later	t@yl	tlk8 u lat8
You only live once	yolo	u 1ly lv 1nc,
Be seeing you	BCNU	b seein u, b cinu
Not much	NM	Nt mch, 9t mch
Love you like a sister	LYLAS	luv u lke sis
Never mind	NVM (you nver mind m their)	nv mnd, 9ver mnd
On my way	OMW (wait i am on m wy)	on m wy
Point of view	Pov	pnt of view
Still in the dark	SITD	Stil n d drk
Off topic	OT	Of tpic
Somebody	Sby	smbdy
Shaking my hand	SMH	Shkin m hnd
You're welcome	YW	Ur welcm
You only live once	yolo	u 1ly lv 1nc
Let me know	Lmk	lt m knw
Shaking my head	Shm	shkin m hed

Too much too handle	2m2h	to mch2 hndl, 2 mch 2 hndl
For ever and ever	4EAE	4ver nd ver
Acknowledge	Ack	aknwlge
Another day in hell	Adih	anthr d n hel
Any day now	Adn	ny d nw
Just for fun	J4f	jst 4 fn
For what it's worth	Fwiw	4 wt it with
For your information	4yi	4 ur infom
How are you	H r u	hw r u
In case you missed it	n csh u ms it	n cse u msed it
I don't care	I dnt c	i dnt care
I know right	I knw rgt	i kw rght
In my humble opinion	n my hub op	In m hmbl opion
You forever	U4e	u 4ver
Long time no see	Log tm9 c	log tme n c
Sooner or later	Sol	sonr l8t
Thanks god it's Friday	Tgif	thks gd's frdy
Read the manual	R t m	red da mnual
Wish you were here	On my way	
Point of view	Pov	pnt of viwe
Thanks in advance	Tia	thx n advce
Still in the dark	Stl n da drk	
Thread from hell	Thrd frm hel	
People	Ppl	
Very big grin	Vy bg grn	
Tender loving care	Tlc	tndr lobin cre
Miss you	M u	mis u
I see	I c	
You win some, you lose some	U wn sm, u ls sm	
You are the best	U r da bst	
Your mileage may vary	Ur mleg mea vry	
You've got mail	Ygm	u hv gt mail
You crack me up	u crk me up	
Excellent	Xlnt	axclnt
Will you call me	ll u cl m	
Where are you from	Whr r u fm	
Where the party at	Whr d pty yt	
What the heck	Wt d hck	
Weekend	Wknd	
What is the point	wt s d pnt	
Wicked Evil Grin	Wkd evi grn	
Whatever	W E	wt evr, w ever
Who cares	W c	hu cres
Welcome back	W b	welcm bak
Wait a minute	W A M	wt a mnt
Very sad face	V s f	vry sd fce
Your	UR	ur, yor, yur
Thank you for your comment	TK U FR CMT	thku 4 ur coment

Talk to you soon	ttys	tk 2 u soon
Tear in my eyes	TIME	Ter n my eyes
Tomorrow is another day	Tmro's nther d	
Thanks for the invitation	Thx fr th ntion	
Thanks for sharing	Thx fr shrng	
Text back later	Tx bk ltr	
To be honest	T b h	2 be honest
To be continued	T b c	2 be continue
To be announced	T b a	2 be anounced
That's all for now	Dt's ll f nw	
So, what's your problem	S, wts ur probms	
Sent with a kiss	St with ks	
Same stuff, different day	Sme stuf, difernt dy	
Seriously	Srsly	
Sorry i missed your call	Sry i missed yr cll	
Are you single	R u sng	r u snple
Real time	R t	real tm
Read between the line	Rd btwn the ln	read btwn da line
Random act of kindness	R a k	rndom at f kindnss
Crying	Qq	cryin,
Please tell me more	Ptmm	plz tel me mor
Parent are watching	Parnt r wting	prnt r wtching
Over the top	Ovr da top	
On the phone	OTP	on da ph
On the other hand	On da othr hnd	
Off to bed	O t b	of da bed
On my way	O my wy	
Overheard	OH	ovrherd
Not to self	N T S	
Not safe for work	Nt sf fr wok	
Not safe for life	Nt sf fr lfe	
None of your business	Nne of ur bsines	
Nothing much	Nthg muh	
Not for me	Nt fr me	
Not a good idea	Nt gd ida	
Laughing on the inside	Lughg o d isde	
Lots of love	lol	lt of lob
Let me know	Lt m knw	
Keep in touch	Kep in tch	
Keep it simple, stupid	KISS	kep it sple, stup
Okay	KK	Oky, k, ky
Just wondering	J W	Jst wondin
Just so you know	Jst so u kw	
Just let me know	Jst lt m kw	

Just in case	Jst i cs	
If you know what I mean	IYKWIM	if u knw wt i mean
It's up to you	IU2U	Itp 2 u
In search of	n srch f	
I still love you	ISLY	i stil lob u
If i remember correctly	If i rember cortly	
I am out	m ot	I m ut
In any event	In ny evnt	
Homework	H W	homwkk
Hope this help/ happy to help	H T H	hpe dis hlp /hppy 2 hlp
Hold on a second	Hld n scod	
Have a nice day	Hv nce d	
Have a good one	HAG1	hv a god 1
Hate	H8	Hatt
Girl	grl	
Great mind think alike	G8 mnd thk ake	
Good luck, have fun	Gud lck, v fn	
Gone for know	Gn 4 kw	
God bless you	G blss u	gd bels u
Goodbye	Gud b	godby
Greetings and salutations	G & S	grting nd slutaion
Get a clue	Gt aclu	
Go ahead	g had	go ahed
Going for coffee	G4c	gin 4 cffe
For your eyes only	4 ur eyes 1ly	
Friend with benifits	Fnd vd bfits	
For the loss/lose	F T L	4 da los, fr da lss
From the bottom of my heart	Frm d botm f m hrt	
End of discussion	EOD	nd f dicion
Effort	Ef4t	efrt
Everyone	E1	evry1, eryon
Do you remember	D u rmber	
Don't think so	Dnt thk s	
Check your e-mail	Chek ur mail	
See you online	C u olin	
Chat with you later	Cht vd u ltr	
Can't stop laughing	Cnt stp laghin	
Close of business	COB	clse f bsness
Correct me if I'm wrong	Crt m f m wrng	
Call me back	Cl m bck	
Bring your on computer	Brng ur o cmptr	bng ur own cmputer
Boss is back	Bos s bck	bs s bk
Be gentle with me	B gnlt vd m	
Be home late	B hm l8	
Bad news	Bd nws	

Best friend forever	Bst frd 4ever	bff
Big freaking deal	Bg frkin del	
Best friend at work	Bst frd @ wrk	
Best friend for know	Bst frd 4 kw	
Big deal	Bg del	b del
Big crush on you	Bg crh on u	b crh on u
Be back tomorrow	B bck 2moro	b bk tomow
Be back soon	B bck son	b bk sn
Be back in a sec	B bck n sec	b bk n a 2 nd
Be back in a minute	B bck n mint	
Business as usual	BAU	bsnes as usal
Are you stupid or something	AYSOS	r u stup or smthn
At your own risk	A t ur rsk	at ur on rsk
Are you serious	R u s	
Are you done yet	R u dne	
Absent without leave	Abnt wthut lv	
At the end of the day	ATEOTD	@nd f dy
All the best	Al d bst	
All my love	Al m luv	
All my best wishes	Al M B W	al m bst wishs
Also know as	AK AS	also knw as
As far as i know	AFAI KW	as fr as i kw
As far as i am concerned	AFAI M C	as fr as m concned
Ask me anythings	AMATHG	ak me anythg
At any rate	ATAR	at ny rate
As a friend	AAF	as frnd
One-to-one (private chat initiation)	121	o to o
Of course	ofcse	fcorse
I have a question/ i don't understand what you mean	?	??
I have a question for you	?4u	I hv ?4 u
One for all, and all for one	14a, a41	1 4 all, nd al 4 1
High-five	H5	hgh fie
Always a pleasure	Aap	alwy a plsre
As always, your friend	aalwys ur frnd	
Anyone can come	Ny1 cn cme	
All done, bye-bye	Al dn, byby	aldn byyy
As I see it	as i c it	
And so it goes	Nd so itgos	nd so it gse
Best of luck	bst of lck	
Bat you on the head	Bt u on d head	
But then again	Bt dn agn	bt de9 agn
Bite this	Bte dis	bit this
Consider it done	cnsdr it dn	
enough	inaf	
Fingers crossed	Fngr crsd	

Forever in my heart	4evr n mhurt	
Fear of missing out	FOMO	
Falling of my chair	Folin f m chir	
For real though	4 rel thgh	
From the bottom of my heart	fm d botm f m hrt	frm da botm of m hrt
For the loss	4 da loss	
Feet up take a break	Ft up tk a brk	
Fine with me	F9 vid m	
For your eyes only	4ur eyes 1ly	
Good to see you	Gud 2 c u	
Got two go	G2g	gt 2 go
Got two run	G2r	gt 2 rn
Got to tell you	G2 tel u	gt 2 tl u
Get back to work	Gbck 2 wrk	gt bak 2
Gone for now	Gn 4 nw	Gn 4 9o
Go to go	Gotta G	Gg, gtaa g
Go to go get me some of that	Gotta go gt m smfthat	3g m smfdat
Go to go pee	Gotta g pe	g2gpee, go2go pe
Give it a rest	Gv it rst	
Good luck to you	GL2U	gd lck 2 u
Good luck all	GLA	gd lck ll
Get over it	GOI	gt ovr it
Greatest of all times	GOAT	g8st f al tme
Good try	GT	godty
Go to go	GTG	go2go
Glad we had this chat	Gld v hd ds cht	gld w hd dis cht
Hate to be you	H8t t b u	hte 2 b u
How about you	Hw abt u	
Hope to see you soon	Hp 2 c u snn	
Hug back	H b	Hug bck
I too	I 2	
Me too	M 2	m to
I am back	I m bck	m bsk
I could fall in love	I cld fll in luv	O culd fal n lob
I don't believe it	I d9t blv it	
I feel your pain	I fl ur p9	
I got high tonight	I g8t hgh 2nt	I gt hgh 29tt
I am bored	I m brd	
If you say so	lyss	If u sy so
Just do it	Jst du it	jst do it
Just a second	Jst a secnd	Jst a s2nd
Just checking	J/c	Jst chkin
Just joking around	JJA	jst jokin arond
Just to let you know	Jst 2 lt u kn	
I will key you later	I'll k u ltr	I'll ky u l8t
Kiss for you	Kss 4 u	
Know it all	Kn it al	9o ital
Killing myself	Klin mself	Kin myslf
Knock on wood	nk on vod	
Kicks of the day	Kik of d d	
Kill yourself	Kil urslf	

Keep up the good work	Kep up d gd wrk	kpup da godwrk
Like to go	L2G	Lk 2 go
Love to go	L2G	luv 2 go
Learn to play	L2P	lrn 2 ply
Like for Like	L4L	lk 4lk
Laughing back at you	Lughin bck 8 u	laghin bk @ u
Laughing but very	Lughin bt vry	
Long-distance	L D	log dstnc
Left for day	Lft 4 dy	
Lord help me	Lod hlp m	
Laugh in my tummy	Lugh in my tmy	
Like my status	LM S	lk m stus
Living the dream	Lvin d drm	lving da frm
More to follow	Mor 2 flw	mre 2 follw
May the force be with you	M d 4s b vid u	
Not going to	nt gonna	9ot gin to
Now I get it	Nw i g8 it	9o i gt8 it
No way out	N wy ut (99 way ut frm here)	
Only for you	O4U	1ly 4 u
Only joking	1ly jkin	
Off the top of my head	Of d tp of m h	of d top f my hed
Peer to peer	P2P	per 2 per
Post a picture	PAP	pst a picture
Please call me	Plz c m	pls cl m
People like us/you	Pp l u	Peple lk u
Put on a happy face	Pt 1 hpy fc	put on hppy fce
Please explain that	Plz x dt	pls expln dat
Pizza	PZA	pizzzza
Pick up kids	PUKS	pck up kds
Question for everyone	QFE	?4 evry1
Quit laughing	QL	qt laugin
Quote of the day	QOTD	qt of da dy
Conversation	cnver	cverstion
Right back at you	Rbck @ u	right bak @ u
Really	rly	realy
Rolling my eyes	rlin my eye	rolin my eye
Are you	R u	
Are you okay	RUOK	r u ok, r u k
Regards	rgds	
Read your screen	RYS	read ur sren
Send to receive	S2R	Snd 2 receive
Spam for life	S4L	spm 4 lfe
Sorry about that	Sry abt dt	Srry abut tht
Smiling back	Smlin bck	sling bk
Sweet dreams, my baby	Swt drlm, mbay	swtdrm mybay
Sorry, i got to run	SIG2R	srly gt 2 run
Sorry, i missed your	Sry i misd ur cl	srly msed urcl

call		
Stay in touch	Sty n tch	sty in toch
Still in the dark	Stl in d drk	
Someone with me	Sm1 vid m	Some1 wd m
Same place, same time	Sm plc, sm tm	sme plae nd tme
So stupid it's funny	SSIF	s stpid it fnyy
See you in the morning	C u in d mrng	c u n da mgin
Think positive	T +	thk pstive
Thanks for being you	Thx 4 bin u	thx 4 bgin u
Thank a lot	Thx a lt	thx a lot
Talk dirty to me	TD2M	tlk drty 2 m
Thank goodness	TG	thk god
Tomorrow is another day	2moro is anthr day	2morw s ander dy
Thanks in advance	Thx in adnc	thks n advce
Tell it like it is	TI it lk it is	tel it lk its
Time to go	TTG	tm 2 go
To long time	Tlt	2 lng tm
Tell me your location	TI m ur lctn	tel me u lction
Tear of joy	TOJ	tr of jy
Trending topic	TT	trdy tpc
The sooner the better	TSTB	da soner da bettr
Told you so	TYS	tld u s
You are too wise for me	U r 2 ys 4 me	u r 2 wise 4 me
You're welcome	Ur wlcm	ur r wlcom
Very big smile	Vry bg sml	vy bg smile
What	W@	Wt, vot
Examine your zipper	XYZ	exm ur zper
You know what	U 9 wt	u knw wt, y9w
Yeah, yeah, sure, sure, whatever	YYSSW	y y sur wtver
Zoo	Z%	zuu
Sleeping	ZZZZ	zzzzzz, slpin
Feeling bored /Tired	ZZZZ	zzz..., flin brd, tird
Too fast for you	2F4U	2fst 4 u
Sleeping hour	ZH	slepin hur
Straight	STR8	strght
For carrying out loud	4COL	fr cryut loud
For ever and ever	4EAE	4evr nd evr
Back in five	BI5	bck n fv
Cool	C%l	col
Free to Talk	Free to talk	fr 2 tk
Genius	G9	genis
Gotta get out of here	GGOH	Gta getut f hr
Go google yourself	GGY	go goggle urself
Here to stay	H2S	Hr 2 sy
Hot for you	H4U	ht 4 u
Just for today	J4T	Jst 4 2dy
Thanks	thanx	Thx, tank, sank, thnx, thks, thanxs, tnx

6.4.2 Construction and Structure of Textisms in Text Communication

Most texts are already decided according to the text based on the letter of substitution. The researcher has discussed this. The researcher has discussed this. However, sometimes it also based on user creativity and their texting style. The following are some examples of Construction of textisms words, which indicates how letters and words replace the same letters and words; and which letters and words place on the same:

- a) Night = nigt here <h>
What = wat here <h>
Which = wich here <h>
When = wen here <h>
Thanks = tn timer here also <h>
- b) Back = bak, bck here <c>, <a>
- c) Thank = thx, thks, <n>
- d) Have = hve
Yeah= yeh,
That = tht
Had = hd
Last = lst, <a>
- e) About = abt
Could = cld
Would = wld
Should = shld, <ou>
- f) Finished = fnshed
Give = gv
His = hs, <i>
- g) Weekend = wkend, <ee>
Weekend = w'end, <ee>
- h) Please = pse, <les>
Plz, pls <ea>
Speak = spk
Message = msg <ea>
- i) Some = sum,
Love = luv, <oe>
Are= r, ar, <e> <er>
- j) Sorry = sos, sry, <ry> <or>
- k) Tomorrow = tomoz <rrow>
- l) Text = txt
Next = nxt
Send = snd
Went = wnt, <e>

-
- m) Don't = dnt
Not = nt
Hope = hpe
Now = nw, <o>
 - n) Good = gd
Soon = sn
Look = lk, luk, <oo>
 - o) One = 1
To = 2
Fore = 4
At, ate, eat = 8
 - p) Be = b
See = c
Are = r
You = u
Why = y
 - q) The = d, <th>

Texts (textisms) are improved instant communication based on a literature review. McWhorter called it a language miracle that has many advantages and disadvantages that affect language. Ling found that text communication is quick, cost-effective, personal and non-instructive and Baron argues that using textual language shows the creative use of letters, numbers and punctuations numbers, as well as increase children's phonetic awareness (Hussain, & Lukmana, 2019).

Thurlow found that young people's orthographic or typeface choices make communication in their messages understandable. He said that it is more meaningful to use consonant clusters in English than vowels after rules and metapragmatic consonant awareness. Even if many linguistic purists exaggerate the death of punctuation, the frequent use of question marks and full punctuation has been found despite the extra effort and time (Thurlow & Brown, 2003). Pluster's research confirms that both young and old texter is fully aware of important practical factors, such as context, relationships, and communication (Plester, et al. 2009). Drouin found that text messaging has given birth to a new language from its vocabulary. To which the textisms referred. This includes unique grammar, lexical, stylistic, and visual features (Kent, & Johnson, 2012).

Some other scholars emphasize that texting influences standard writing, orthography, and grammar negatively. Broadcasting Company reported that text messaging has long been accused by declining spelling and grammar standards,

especially in writing via paper and pencil (Sirah, & Ullah, 2007). Crystal states that the text has added a new dimension to the use of language, which has an insignificant long-term effect that does not harm linguistic standards. The lines between formal English and the informal language of SMS is sometimes confused by students so that they may face many mistakes in their spelling and grammar in assignments and tests (Crystal, 2008). Titanji, et al. found that students also understand what is presented by their readers and friends during text communication, which differs from Standard English forms. The authors, therefore, believe that the SMS and instant texting (style of textisms) event is positive rather than negative.

Farina and Lyddy concluded that a minority of words in text messages are found in non-standard languages, and most of them are traditional forms. They found that text language consists of emoticons, typographic, symbolic, acronymic, and almost all textisms with frequent occurrences that seem to be phonetically based forms such as non-conventional orthographic, accent, and onomatopoeic orthographic. They also found that textisms positively correlated with reading in children, vocabulary, phonemic awareness, and some aspects of language in young adults (Farina, & Lyddy, 2011).

Instant Messaging and messaging (SMS) are not like face-to-face conversations. In both, you cannot physically see the other conversant, which leads to great inconvenience. Lack of access to body language, voice, and facial expressions are problems faced by every moment and every text messenger. Therefore, they use creativity in written language to compensate for the lack of physical interaction. Message brevity has become the new language of text, with more thoughtful or more complex messages likely to include more "standard spelling." Certain words are particularly suited to abbreviations, such as the commonly used words "you" and "be." Without prior knowledge of the text language, "I need to give you this" and "I will be late" can be easily understood. Because it is merely changing the word spelling to the way, it is pronounced. Rebuses, used for hundreds of years, are references to the use of "b" and "u" as well as to other uses of "single letters, numerals or symbols to represent words or part of words" (Crystal 2008).

Quan Haase divides certain of the language trends into five kinds of abbreviations. For example "homophonic spellings (e.g. u = you), truncated homophonic spellings (e.g. k = okay), borrowed shorthand (e.g. w = with), reduced

spellings needing a gloss (e.g. ft = faint), and simplified but recognizable spellings (e.g. nite = night)" (Quan-Haase, 2009).

Bergs has also described some of these language trends in a similar way. He notes that phonetic spelling forms, typically morphological contractions of an informal speech, non-standard variant representations, and closely related written representative form, informal SMS Can be found in communication. Bergs has also described some of these language trends in a similar way. He notes that phonetic spelling forms, typically morphological contractions of an informal speech, non-standard variant representations, and closely related written representative form, informal SMS Can be found in communication. Semi-phonetic spellings and eye dialect, for example: *enuf for enough, nite for night, u for you, no for know, l8t for later* also can be part of informal SMS and instant messaging form of communication (Bergs, 2009).

Beside of this, *"Morphosyntactic contractions representing spoken informal language: isn't 'is not', cant 'cannot', gonna 'going to', wanna 'want to'. Written representations of nonstandard forms (e.g., dialectal or sociolectal variants). Interjections and discourse markers that are usually common in written representations of spoken language: <oh> <ah> <yikes> <hehehe> <yeah> <boo> <boah> <yippie> <ey> <mmm>"* (Bergs, pp. 60, 2009).

For many reasons such as speed, familiarity, or convenience, these shortenings or language features occur. Speech, as well as lexical shortenings from previous media, influences them. Each texter is responsible for determining what linguistic trends it wants to use. The beauty of text messaging is that every texter can use its own language. This (text messaging) enables linguistic creativity and playfulness, in which the signifier becomes a product of an independent choice. Users can, therefore, shorten the indicator, replace or add a single letter or digit for phonetic sounds. Words can also be substituted with sound or initial imitations (Soffer, 2012). These lexical shortenings make it possible to communicate instantaneously; because an expert textese user can spend less time in Standard English writing complete words.

Carrington calls this idea of creating "squeeze-text," the shortest and most convenient version. Where words can be shortened by removing the vowels, to the minimum syllable length. Articles and conjunctions can be omitted, and graphic units may be replaced by numbers or letters, e.g., *great can be g8t, for can be 4, to can be 2, see can be c, and someone can be sum1*. Common phrases can be acronymized. The capital letters can be omitted or used in conjunction. Many other forms and

abbreviations are also being used (Lyddy, 2013, p. 545). There are so many lexical shortenings that they are difficult to name and describe. It is particularly hard because certain types are popular or common than others, whereas some are very less popular.

Although many of these trends were originally developed to produce a fast, comfortable language, it was not easy to develop the text. Linguistic trends such as lexical summarization (textisms) were created as media control factors, but text messaging is no longer limited to 160 characters; lexical shortcuts are still in use. Some of them include creating a secret code, initiating youth culture, and creating spoken vocabulary in a written medium. "The medium is the message," as Marshall McLuhan so eloquently stated in 1964. It is not only the content of the message but also the media itself, which is essential with many other media in text messaging (Quan-Haase, 2009, p. 46).

David Crystal explains that the creative use of text is happening through the message (Crystal, 2008, p. 80). For teenagers, cell phones are a universal lifeline through which they feel close to their loved ones (Jones, & Schieffelin, 2009). They can "chat" with their friends in the classroom in front of their teachers, and even talk to their boyfriend or girlfriend in front of parents whom their parents do not even know. Because the text is not always automatically deleted and the password is not always secure, however, if someone is taking your phone, they can quickly read it by looking at the screen. Since cell phones are mostly publicly available, there is always a concern that they will be seen or read. Therefore, teenagers use more esoteric or unusual words so that readers do not understand the full meaning of their texts (Palasick, 2014).

This concurrent use of youth and old language allows teenagers to text in a discrete manner when the undesirable reader does not regularly use the textbook. In other words, the ambiguity and complex textual shortcuts are not accidental. Texting dictionary is also created, as the text has become a kind of slang language enabling group inclusion, which implies that people can understand the digital culture. Young people tell they are part of the IM culture, and they understand the unique IM communication practices (Quan-Haase, 2009, p. 47).

Studying texting's linguistic effects is now much more than merely grammatical and technological patterns. Language is the social function, the interaction of meaning, the importance of the intention, and the importance of the social and cultural context. Many linguistic trends, such as punctuation and disregard of capitalization, short messages, often criticized as "standard" English, are really just a mixture of spoken and

written words. Phrases like "um ...," lack for some grammatical conventions, no reference to dashes, semicolons or parentheses, and extremely quick turns are found in text messages. Such phrases are often used during a conversation. Soffer (2012) observed that the phonetic sound that characterizes a letter or a digit replaces the word in this type of digital oral writing (textese), for example, 'b= be', 'c= see', '8= ate', '4= for' (Soffer, 2012).

Actually, in an informal discussion, the same language that you used to write an official letter may even confuse or upset people. Whether or not we understand it, how we speak, and how we write are different, but the manner in which we text and speak is similar. Texters use verbal phonetic sounds creative in their written texts, therefore working as a condensed version of original indicators while preserving the sound phonetic in some respects, which makes the original indicator known (Soffer, 2012).

Text communication is a medium that very explicitly demonstrates the creative use of language. While it was initially developed for convenience, it is clear that a number of different concepts and ideas have emerged from this new kind of language seen in text. The "squeeze text" is now a group inclusion, frenzy in the media, a secret code, and a "third type" of linguistic language that, together with technically verbal compounds, creates a new and original writing. Language always has a tremendous influence and affects our lives daily. It is capable of influencing culture and cultural standards and, as Thurlow says, "language is instrumental in defining categories of inequality." (Thurlow & Mroczek, 2011). Textisms in SMS and instant messaging are clearly able to influence the culture of informal text and society as well and change communication patterns.

6.4.3 Text Textisms (Abbreviations) in Language with Literal Meanings

Short descriptions such as 'bff' (best friend forever), 'brb' (be right back), 'btw' (by the way), 'idk' (i don't know), and 'idc' (i don't care) correspond directly to literal meanings of the acronyms. They have no other pragmatic meaning. 'Lemme' (let me) and 'ur' (you are/your) do not constitute acronyms, but abbreviations that are used for functional purposes those where text is somehow restricted, like in the classroom while walking, or carrying something, etc. In situations like this, when you may be limited to word space, you may use abbreviations such as 'our' or 'lemme' strictly for convenience (Tully, 2013).

The meaning is not what they seem. "werd," "keWl," and "oh em gee," is similar communication patterns. Some semantics such as "vord" (a variation on the word),

"kewl" (a variation on the cool), and "oh em gee" (omg spelled out) are all exclamations that go beyond their literal meanings (Tully, 2013).

"Oh, em gee" is less straightforward than "omg," because it is more removed from the word, "Oh my God." "Oh em gee" is an exclaiming answer, which, like "werd" and "kewl" nevertheless acknowledges with little playful incredulity the content of the message received, as in "oh em gee! You dyed your hair purple! Send me a pic!" (Tully, 2013). It admits that the information is unique, but does not express negative meaning, as it would be, "Oh my god!" (Tully, 2013). For example:



Source: <https://www.academia.edu/7722030/Pragmatic>

Figure 6.1: Example of Text message with Textisms

All the highlights are playful answers to recognize that the sender has subscribed to the OkCupid online socialization site. "Oh em geeeee" reaction refers to the same significance as "omg" with an undertone more playful, less unbelievable.

If a phrase construction is associated with "lol", it is likely that the speaker is either joking or interpreting it less seriously than a plain word. It is a softener in a sense. "Lol" may only occur in the beginning or in the end, as a modal particle. For example:



Source: <https://www.academia.edu/7722030/Pragmatic>

Figure 6.2: Text Communications with Textisms

If the phrase begins with "lol" as stated above, it is known for the soft quality of the sentence. If "Lol" ends the sentence, it is clearer than the inherent feeling of the sentence, which is said in the sentences immediately preceding. However, the difference is slight; it is often a stylistic rather than semantic difference to choose between "lol" initial and "lol" final (Tully, 2013).



Source: Baldwin & Chai, 2011

Figure 6.3: Dialogue of text communication with textisms

All the highlights are playful answers to comment the receiver by the sender that he/she looking good. "*lookin*, *hiii*, and, *goooooooood*" reaction refers to the same significance as "*looking*, *hi*, and *good*" with an undertone more playful, less unbelievable.

6.4.4 Spoken and Written language in text messaging

Speeches and written speeches differ structurally and serve various functions. The speech is more fragmented with simple phrases and coordinated words. Written texts display a variety of phrases, with various structural shapes. SMS text can be seen as a marginal discourse as its hybrid exhibits both written and spoken discourses. In addition, both interactional and transactional text messages are used. Herring (2001) notes that technical (medium) variables, such as synchronism, text length, and plurality, affect languages; also, non-linguistic variables such as participants' relationships, expectations, and levels of motivation are also necessarily influencing languages (Herring, 2001).

SMS (short messaging service) language can also be broadly defined as asynchronous text. However, text messages can be asynchronous or synchronous, depending on whether the recipient and the sender are available to respond using their mobile phone. Most SMS communications involve interpersonal communication between people who know one another. The difficulty of the small screen size, its limited character area (160 characters), and the small keypad has motivated the development of an even shorter language than in virtual world chat groups (Crystal, 2001).

Moreover, a text message is a private communication that enables users to rebel against the standard rules of the English language. Texting does not always comply with grammar standard rules. Thurlow (2007) notes that texting impacts on literacy

and the standard use of languages, especially those of young people. In this context, texting is described as a continuous attack on formal, written English by technology. Linguists and educators are thus able to use the debate on languages as a legitimate language and the full range of their grammar, syntax, and semantics to inspire academic debate and to understand all the language variations. In addition, text users, especially young people, clearly show that their grammar skills are intact. Texting is thus a relaxed and often informal way of communication (Thurlow, 2007).

Texting reflects linguistic change and language innovation. Studying text-messaging language can tell us about the structure of the sentences and their variation in general. The most common features of SMS and text messaging language are that it contains shortened form, slang, syntax reduction, emotional asterisks, emoticons, speech deletions, especially pronouns subject, preface, text, copula, auxiliary or modular verb, and contraction. Writing in a text can usually be a shortened form of words, and there is a difference between the language of the text and the general speech. We just use a certain portion of the word, and the recipient understands that word. For example: *'because' can wrote as 'bcz', 'you' can write as 'u', 'have' can write as 'hv', 'see you' can write as 'cu'*. Everyone has their own different form of texting from others, and everyone uses their own special words. In addition, the text is a privately held communication that enables users to rebel against English standard rules. In addition, texting is a private communication that allows users to rebel against the English-language standard rules. The main feature of the language of the text is abbreviation, slang, emoticons, removal of parts of speech, especially subject pronouns, prepositions, and articles (Ong'onda, 2009).

Writing in texts is straightforward, and there is no limit to using different words and sentence structures. Most often, mobile telephones are used for text and have become the most popular functionality of mobile phones. It made communication quicker and more trustworthy. People just text and keep in touch in this busy life.

The SMS message texters are experimenting with written language manipulating it to fit the space and style of technological limitations. SMS text messages and the internet strip the most important written language due to time limitations and the lack of Paralinguistic signals that exist for face-to-face communication. The communication teacher in Oxford, Millard (1996), refers to it as *"meta-communicative minimalism."* Phatic or Meta communicative signs are dramatically reduced by the language and paralinguistic signs which maintain a sense of the social relationship between the sender and the

recipient of a message. In fact, the messages are a mix of actual words and acronyms, abbreviations, and short forms, which characterize SMS text messaging language. They are reduced by cutting, omitting letters, or replacing consecutive letters with a less sequentially equivalent selection of consecutive characters in one word (Shortis, 2001).

SMS research is currently being carried out in sociology, psychology, communication, media, language, and market research. Any new innovation is unavoidably not readily accepted from the outset but rather seen initially with some suspicion. SMS was thus not welcomed with open arms, and Williams' (1983) mobile telephone communication studies reflect pessimism about SMS. SMS causes a separate presence and a loss of human connectivity in general (Williams, 1983).

Communication technology, such as mobile phones and the Internet, allows people to connect with people from whom they are physically distant. The text communication strengthens social networking is one of the key topics in mobile phone communication. The study by Ling & Yttri (2002) found that transmitting a text message could be more important than coordinating practical arrangements in terms of building and maintaining social relations. In Thurlow's (2003) study of undergraduate text messages, only a third of the messages were found to serve functional or practical purposes, the rest with an intimate, relational combination of phytic, friendly-relationship, romantic, and social functions. The text message, therefore, appears to be an opportunity for intimate personal contact while at the same time offering the necessary detachment to control self-presentation and participation (Reid, & Reid, 2005).

Grinter & Eldridge's (2001) found that users have been using mobile text to arrange chat times and adjust previous arrangements. They also coordinate with their friends and family with text messages. The ability to connect to others everywhere permits permanent contact (Katz & Aakhus, 2002). This was also reflected in research conducted by Reid (2004), in which text can often be obtained anywhere at any time, where people can respond secretly and judiciously, performing multiple tasks.

Earlier researched by Ling (2001) claims that the backbone of mobile telephones appears to be micro coordination. It also allows interlocutors to confirm, reconfirm, and amend previously organized plans and activities. Linguistic studies conducted by Siegestard (2003) have examined the language of interlocutors grammatically and literally (Hård af Segerstad, 2003).

Doring (2002) observes that syntactic reductions are used even though space is available for the whole text version. She believes that short forms such as abbreviations and acronyms fulfill a function of collective identity. Lin (2005) observed that most students use bilingual text in English and Chinese at the University of Hong Kong. In practice, it appears that people use a variety of language resources to include code-mixing forms in their text messages (Lin, 2005).

6.5 Social Media and Textisms in Communication

Textisms are motivated by change and by new and innovative thinking. The textisms created new usability characteristics to make the text easier for users (Shao, 2009). Innovativeness is often a way of eliminating irritation by limitations in various social media formats and thereby connecting the relationship between attitude and purpose (Lim & Ting, 2012).

Innovation starts with the adoption of new technologies and then searches new, intellectual, and sensory sensations. Language has a strong value for the encouragement of innovation, whether it is through a mother tongue or a jargon that a community accepts like textisms (James et al., 2008). Innovation has found a trend in social media because younger people are more likely to look for sensory innovation, and old people need intellectual innovation. Innovation is the core of the origin of textisms. Its expanding use has led to the trends of young people and has developed into a standard and acceptable component of communication with a wider audience as they aged or taught (Drum, 2015).

One of the main reasons for interaction is social motives (Rubin, 1983). Users often consume social media content to interact with other users, participate in it, and produce fresh new words (McQuail, 1983). They want a virtual community to enhance their social lives. These users are very concerned about their relationships with others and try to improve their relationships with their friends by constantly participating in social media (Jung et al., 2007). Social media has greatly helped users maintain relationships with online friends and the real world. This networking allows a peer group to quickly build and simultaneously enable users to find friends and boost their socialization skills (Haridakis & Hanson, 2009).

The increase in online interaction was linked to the simplicity of access. Due to the ease of online use for continuous updates, users have considerable support in social interaction, everyday worldly information from friends and families. Communications systems have existed for years without prejudice to race, age, or any other demographic

statistics. Words such as LOL, OMG, and <3 are commonly found in the Oxford Dictionary (Brown, 2010). However, the language of the Internet has become informal and expressive as these intentional errors are tolerated, which gradually become part of new text communication (Conti-Ramsden et al., 2010). Textism is moved from text to other social media formats such as Facebook, Twitter, and instant message but is also a way to communicate verbally and academically. Plester et al. (2009) found children used textisms approximately 58 percent of the time in all their survey groups. Ling and Baron (2007) discovered that textisms are common to university students, but also noted a formats-based difference in use; where immediate use less textism than standard telephone-based text messages. The use of text and writing skills directly affect the level of education. Those who used more text messages were found to be correlated with worse formal writing, and less educated people saw greater use of textual content (Rosen et al., 2010).

In China, Korea, Japan, Britain, and the USA, text-based studies have become a subset of many written languages. Textisms' playfulness has had an ongoing influence on the entire language (Gottlieb, 2010). The participants, as well as all social media, are rooted in this subset of language. The use of textisms that people are generally familiar with should make common and informal messages more relevant (Smith, 2011).

6.6 Chapter Summary

This chapter has been outlined the changing text literacy practices used by young people. In addition, the complexity of existing concepts of texts, along with written and spoken varieties, is highlighted. At the beginning of the chapter, the mediated writing periphery, cultural transmission, and various aspects of the linguistic corpus on which the text is based are described. During text communication, technical texts and the language of their various forms are explained with examples. In the last of this chapter, the literal meaning of textisms (techlingo) during communication is also discussed. The mixed language spoken and written in the text, which focuses on social media, is described in detail in this chapter.

CHAPTER SEVEN

Data Analysis and Interpretation

7.1 Introduction

This chapter discusses the results and analysis of the proposed research study. In this chapter researcher has discussed and analysed data of result. Researcher has collected data through interview schedule and filed observation. In this chapter, the researcher discussed the consequences of general information related to the uses of ICTs to maintain interpersonal communication and its effects on the communication patterns and Individuals behaviors. This chapter also focused on the qualitative analysis of experts views and opinions about proposed research study.

The structured interview schedule has been used for the collection of primary data. The interview schedule includes four sets of Questions such as general question related to:

- a) Uses and influence of information and communication technologies on formal and informal interpersonal communication
- b) Influence of information and communication technologies on Face-to-Face communication
- c) Uses and importance of digital Non-verbal Cues (Emoticons and Emojis) in interpersonal communication
- d) Uses and importance of Textisms (abbreviations or shortcut pattern) in interpersonal communication

The trial version of IBM SPSS V.23 and Microsoft Excel 2016 has used to interpret and analyzed the collected data (primary). The interview schedule includes both closed-ended questions and open-ended questions. For the closed-ended questions, a three-point Likert scale, ranging from “Disagree” to “Agree” has been used. In addition, the researcher has used frequency scale ranging from “Never” to “Always” and “once in a day” to “thrice-in month”, dichotomous scale such as “yes” and “No”, Pictorial/Graphic Scales and self-created multiple optional scales (Sauro, J. 2018). Eighty-two items of 400 respondents have entered into SPSS and data has treated using the variable view in SPSS. Each item has separated coded. The value has entered in SPSS and all the dimensions have converted to scale before starting with statistical analysis. Labeling and detailing for each item has also done.

7.2. Demographic Information of the respondents

Factors such as age, University/Institutions, Gender, Education, marital status, and staying status have been considered for an analysis of the demographic information of respondents. Below is a systematic and graphical representation of the demographic information of the surveyed respondents. Below is a systematic and graphical representation of the survey respondents' demographic information.

7.2.1. Age of the respondents

Age is an essential demographic factor of any research. It helps to understand the nature of the respondents. This is the most important feature of the sample to understand ideas and opinions about specific problems. It helps to the generalization of respondents. This study explores the uses and effects of ICTs on its users. According to the analytics Jenn Chen 2020 “sporutsocial” report and Pew research Centre survey 2019, 18 to 29 year-olds age group most frequently used the internet and social networking sites. Pew Research Centre divided users of the internet and social media into different age groups/categories such as 13 to 17-year-olds, 18 to 24-year-olds, 25 to 29 –year-olds, 30 to 49 –year-olds, 50 to 64- year-olds, and 65 to above.

Respectively from these, 51percent internet and social media user comes under between 13-17, 76 percent internet and social media user comes between 18-24 age group, 84 percent comes between 25 -29 age group, 79 percent comes under between 30-49 age group, 68 percent comes under between 50-64, and 46 percent comes under between 65 to above. *Therefore, the relations of the present study keep ties with the age of the respondents sincerely. The present study has categorized the age of the respondents into three age groups.* The following table shows the categorization of the age groups:

Table 7.1: Age of the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18 To 24	250	62.5	62.5	62.5
25 To 29	114	28.5	28.5	91.0
30 To above	36	9.0	9.0	100.0
Total	400	100.0	100.0	

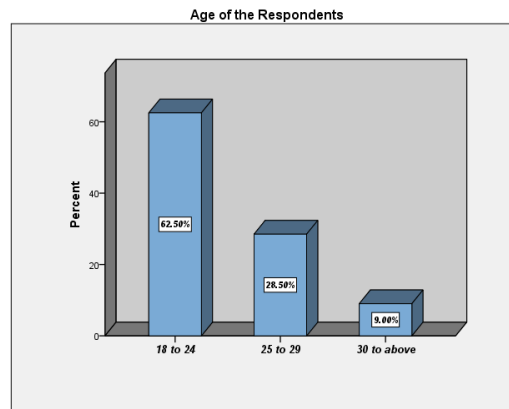


Figure 7.1: Percentage of age of the respondents GroupWise

The above table and figure show the age of the respondents who have frequently used information and communication technologies as a medium of communication and other activity. It is observed by the researcher from the table that, out of total n=400 respondents, majorities of respondents belong from the age group between 18 to 24 years, i.e., 250 respondents, whereas the second largest respondents belong from the age group between 25 to 29 years, i.e., 114 respondents. In addition, very less, i.e., n=36 respondents have been belong to the age group of 30 and above. Based on the figure of percentage, a higher percentage of respondents fall under age group 18 to 24 years, i.e., 62.50 percent, Which shows that age between 18 to 24 years dominated age group for this study and frequently active on technology for communication and other activities.

7.2.2. Gender of the Respondents

In the social situation in India, gender is an important variable and is differentially affected by any social or economic phenomenon. Gender shows the ratio of males and females. The below table shows the frequency of males and females participated.

Table 7.2: Gender of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	256	64.0	64.0	64.0
	Female	144	36.0	36.0	100.0
	Total	400	100.0	100.0	

The table above 7.2 demonstrates there was a mix of male and female participates who took part in the study. Out of n=400 respondents, n=256 respondents were male from selected higher education Institutions/ Universities, and n=144

respondents were females respondents were using Information and Communication Technologies for Interpersonal Communication.

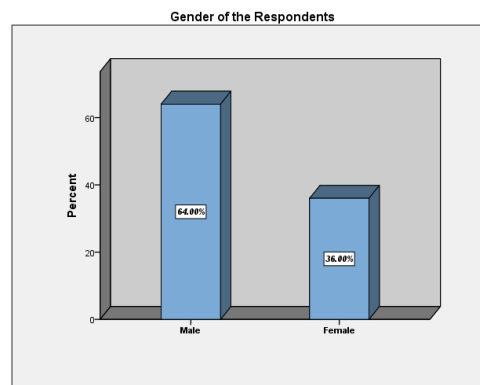


Figure 7.2: Percentage of Gender representations of the Respondents

It is quite clear from the above figure that out of the total respondents investigated for this study, an overwhelming majority (64 percent) of them have males. In contrast, about 20% have been found to be females. Thus, it found that they all were using Information and Communication Technologies frequently for formal and informal communication.

7.2.3. Education of the respondents

Education is one of the most important features, which may influence people's attitudes, and their opinion and understanding of social phenomena. Education is an important aspect to understand the uses and effects of ICTs in the respondent's life. Education increases the understanding and the level of involvement in any negative or positive things. In a way, an individual's response can probably be based on his or her educational status, and therefore the educational background of the respondents is imperative. Therefore, the present study divided higher education into four types. The researcher, therefore, examined the variable education of the respondents and presented data concerning education in a given table:

Table 7.3: Present Education of the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid UG	148	37.0	37.0	37.0
PG	146	36.5	36.5	73.5
M.Phil	26	6.5	6.5	80.0
Ph.D.	80	20.0	20.0	100.0
Total	400	100.0	100.0	

The above table 7.3 shows the educational qualification level of the respondents. The table indicated that amongst the n= 400 respondents, 148 respondents have an undergraduate level of education, 146 respondents have a postgraduate level of education, 26 respondents have a Mphil level, and 80 respondents have a Ph.D. level of education qualification. Who is frequently using information and communication technology? This demonstrates that undergraduate and postgraduate levels of respondents have the most used Information and Communication Technologies for Interpersonal communication and other Personal work.

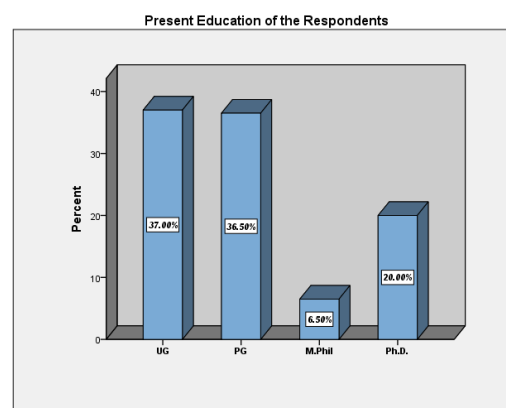


Figure 7.3: Percentage of present Education of the Respondents

The above figure indicates the percentage of education profiles of respondents who participated in this study. The result shows that 37 percent of respondents were from undergraduate backgrounds; slightly less than 36.5 percent of respondents were from the Postgraduate level and 20 percent of respondents were from Ph.D. Only 6.5 percent of respondents were from the M.Phil background. Hence, it is proved that the Majority of Respondents were of undergraduate and Post Graduate level. It can be concluded that a large number of respondents were progressive in education.

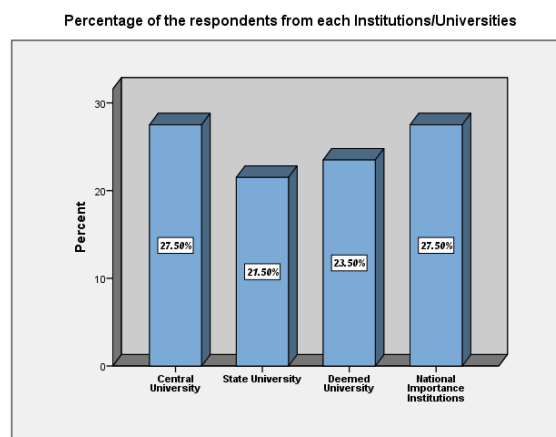
7.2.4 Nature of Institutions/Universities and frequency of the Respondents

It is very important to know the nature (type) of Institutions/Universities because all respondents were from the higher education institutions of Delhi and used information and communication technologies frequently for personal and professional communication.

Table 7.4: Universities/ Institutions and the Respondents

Nature of Universities/Institutions of Respondents		Frequency/ Number of Respondents	Percent	Valid Percent	Cumulative Percent
Valid	Central University	110	27.5	27.5	27.5
	State University	86	21.5	21.5	49.0
	Deemed University	94	23.5	23.5	72.5
	National Importance Institutions	110	27.5	27.5	100.0
	Total	400	100.0	100.0	

Table 7.4 shows the Nature of Institutions/ Universities taken for sampling. The nature of all Institutions/universities is different from each other. Therefore, to the collection of data, the present study has classified the higher education Institutions/Universities into four categories viz., Central University, State University, Deemed University, and National Importance Institutions. Amongst the n=400 respondents, n=110 respondents have taken from Central University. The number of respondents from each university has taken on the basis of their total numbers of students, and their equal proportion of each university population. N=86 respondents have taken from State University, n=94 respondents have taken from Deemed University and, n=110 respondents were from National Importance Institutions. The above data revealed that the types of higher education institutions/universities and the distribution of sample respondents.

**Figure 7.4: Percentage of the Respondents from each institution/ Universities**

It is evident from the figure, amongst 27.5 percent of respondents from Central University, those frequently using ICTs for Interpersonal communication participated in this survey. Whereas 21.5 percent of respondents participated from State

University, 23.5 percent of respondents from Deemed University, and 27.5 percent of respondents have participated from National Importance Institutions. Which shows participated majority of the respondents were from the Central University and National Importance Institutions? Which is relates to the number of students enrolled in each institutions/Universities?

7.2.5. Staying status of the respondents

The present study has based on the use and effects of technologies in interpersonal communication. The sample unite for this study have taken by the researcher is the youth because youths are frequent users of ICTs, according to the Pew Research Centre and Statista Research department report. Most youths stay separately because of their study and job. So staying status of the respondents is also a very important factor that affects the use of ICTs.

Table 7.5: Staying Status of the Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid With friends/Roommate	149	37.3	37.3	37.3
Single	119	29.8	29.8	67.0
With Family	132	33.0	33.0	100.0
Total	400	100.0	100.0	

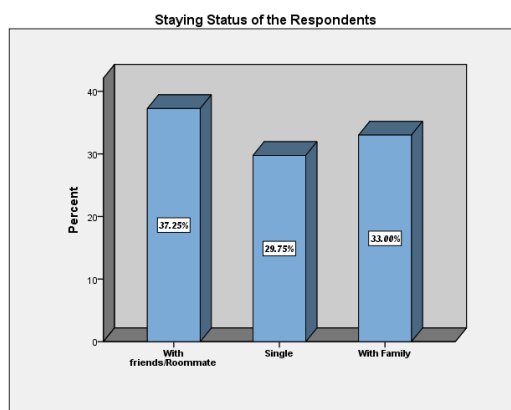


Figure 7.5: Percentage of staying status of the Respondents

As the above table & figure represents the staying status of the respondents that are categorized into three-group viz., with friends/roommates, single, and family. Table and figure show that out of total respondents (n=400), 37.3 percent of respondents (n=149) stay with friends/roommates, 29.8 percent of respondents (n=119) stay single or separately, and 33 percent respondents (n=132) stay with family. This shows the staying trend is changed from the previous time to the current

situation. Now students prefer to stay alone, not with family. Now the family also supports and understands the value of education.

7.3 Uses and influence of Information and Communication Technologies on formal and informal Interpersonal Communication

7.3.1 Medium frequently use to maintain different interpersonal relationships

From the descriptive table 7.6, it has been noticed that the mean of face-to-face communication across all interpersonal relationships is not equal. The table shows that high difference in minimum (M=2.02) and maximum (M=2.20) mean value, whereas the minimum (M=1.89) and maximum (M=1.95) mean value for Technology-Mediated Communication almost has equal in all interpersonal relationships. The researcher observed that a lower difference in the mean value of Technology-Mediated Communication and a higher percent of N value (N %) of TMC in every relationship. This revealed that most of the respondents mostly used TMC to maintain all the various interpersonal relationships.

Table 7.6: Descriptive comparing means of Face-to-Face (FTF) and Technology-Mediated Communication (TMC) to maintain different Interpersonal Relationship

Relationships	Methods	Mean	Std. Deviation	N%
Friends	FTF	2.14	.844	28.3%
	TMC	1.89	.826	71.8%
	Total	1.96	.838	100.0%
Class Fellows	FTF	2.01	.885	28.0%
	TMC	1.94	.820	72.0%
	Total	1.96	.838	100.0%
Love Relation(Personal)	FTF	2.20	.860	18.5%
	TMC	1.90	.824	81.5%
	Total	1.96	.838	100%
Teachers/Seniors	FTF	2.02	.863	29.8%
	TMC	1.93	.827	70.3%
	Total	1.96	.838	100.0%
University staff	FTF	2.02	.863	32.8%
	TMC	1.93	.825	67.3%
	Total	1.96	.838	100.0%
Relatives	FTF	2.11	.875	7.0%
	TMC	1.95	.835	93%
	Total	1.96	.838	100.0%

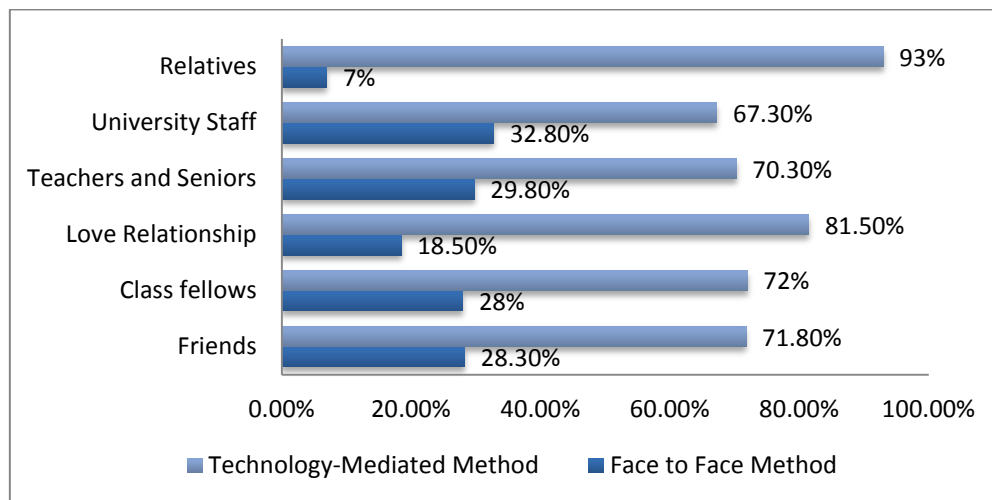


Figure 7.6: Percentage of Communication Method to Maintain Different Relationship

It is evident from table & figure that almost 71.80 percent of respondents replied that they used a technology-mediated method to communicate with friends out of 100 percent separately. 72 percent of respondents replied that they used a technology-mediated communication method more than face-to-face communication to communicate with class fellows. Other relationships like Love relationship, 81.50 percent of respondents used TMC, to communicate with teachers, and seniors 70.30 percent used TMC. Besides, to communicate with university staff, 67.30 respondents used TMC, and to maintain a relationship with relatives, 93 percent of respondents used TMC.

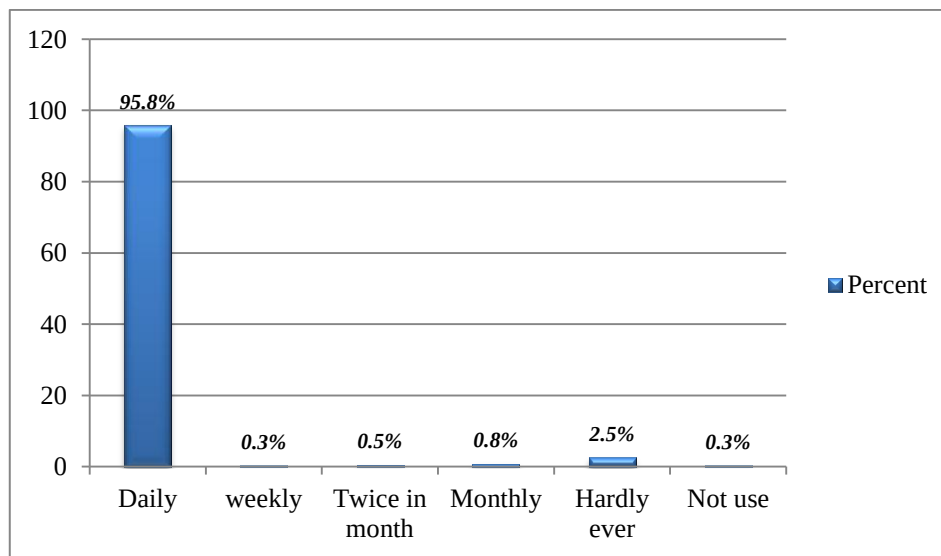
On the basis of data, 93 percent of respondents answered that they used Technology-mediated communication to communicate with relatives. These results vary by relationship and the method of maintaining it, which concluded that the majority of respondents used technology-mediated communication for interpersonal communication in a different relationship than face-to-face communication. Even in personal relationships such as love relationships and communication with relative, also technology-mediated- communication is dominated on face-to-face communication.

7.3.2 WhatsApp and Interpersonal Communication

More than 400 million active users in India have been crossed over by WhatsApp. To understand that which amount of frequency respondents has used WhatsApp for interaction. Respondents were asked the question; the following table shows the response to the question.

Table 7.7: I use WhatsApp ____ for interaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	383	95.8	95.8	95.8
	weekly	1	.3	.3	96.0
	Twice in month	2	.5	.5	96.5
	Monthly	3	.8	.8	97.3
	Hardly ever	10	2.5	2.5	99.8
	Not use	1	.3	.3	100.0
	Total	400	100.0	100.0	

**Figure 7.7: Percentage of WhatsApp use for interpersonal communication**

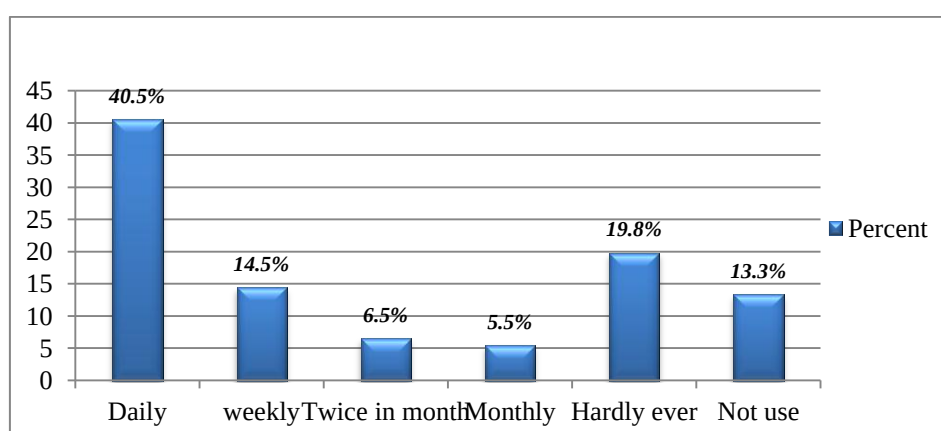
The evidence from table & figure shows that amongst n=400 respondents, 95.8 percent of the respondents have replied daily, that they used WhatsApp for daily basis interaction. 2.5 percent of the respondents have replied hardly ever; they used WhatsApp for interaction whereas, .3%, .5%, and .8% replied that they used WhatsApp for interaction based on weekly, twice in a month, monthly and 3 percent of the respondents replied that they had not used WhatsApp for interaction. Based on the majority, it was found that the respondents have used WhatsApp every day, for negotiation purposes.

7.3.3 Twitter and Interpersonal Communication

To understand the extent to which respondents use Twitter for interaction. The respondents were asked questions; the following table shows the response to the question:

Table 7.8: I use twitter _____ for interaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	162	40.5	40.5	40.5
	weekly	58	14.5	14.5	55.0
	Twice in month	26	6.5	6.5	61.5
	Monthly	22	5.5	5.5	67.0
	Hardly ever	79	19.8	19.8	86.8
	Not use	53	13.3	13.3	100.0
	Total	400	100.0	100.0	

**Figure 7.8: Percentage of twitter use for interpersonal communication**

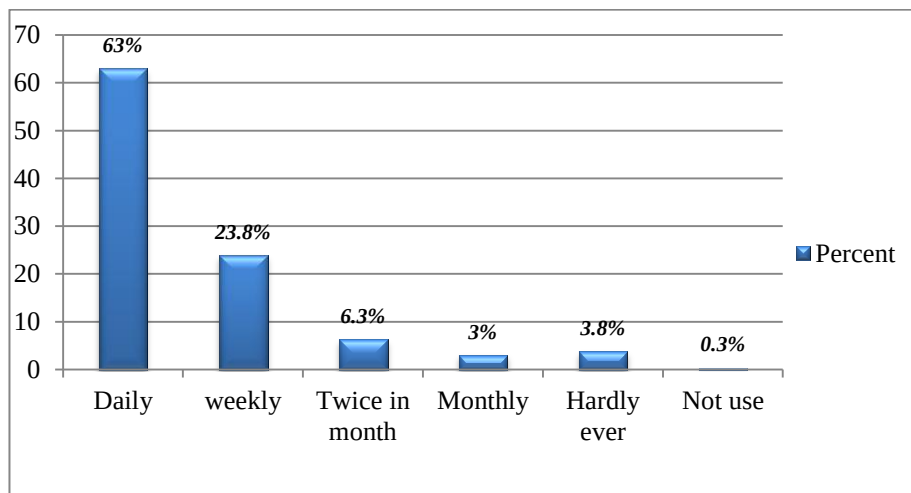
The above table & figure shows the percentage of twitter frequently used for interaction. Out of total (n=400) respondents, the majority of respondents, i.e., 40.5 percent replied daily, that they regularly used twitter for interaction. 19.8 % of the respondents hardly ever replied that they do not use twitter regularly for interaction. 14.5 percent of the respondents replied weekly that they used twitter once in a week, 6.5 percent of the respondents replied twice in a month, and 5.5 percent replied monthly that they used twitter once and twice in a month, whereas 13.3 percent of the respondents replied not use, that they never used twitter for any type of interaction. It shows that the majority of respondents have daily used twitter for interaction.

7.3.4 Facebook and Interpersonal communication

To understand the extent to which respondents use Facebook for interaction. The respondents were asked questions; the following table shows the response to the question:

Table 7.9: I use Facebook _____ for interaction, post, comments, share etc

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	252	63.0	63.0	63.0
	weekly	95	23.8	23.8	86.8
	Twice in month	25	6.3	6.3	93.0
	Monthly	12	3.0	3.0	96.0
	Hardly ever	15	3.8	3.8	99.8
	Not use	1	.3	.3	100.0
	Total	400	100.0	100.0	

**Figure 7.9: Percentage of Facebook use for interpersonal communication**

It is observed from table & figure that amongst (n=400) respondents, 63 percent of the respondents (n=252) replied daily, that they used Facebook for daily based interaction. 23.8 percent of the respondents (n=95) replied weekly; they used in week Facebook for interaction. Whereas 6.3 percent, 3 percent, 3.8 percent (n= 25, 12, 15) replied that they used Facebook for interaction based on twice in a month, monthly, hardly ever basis and 3 percent of the respondents (n=1) replied that they did not use Facebook for interaction.

Therefore, it can be revealed that an overwhelming majority of the respondents (63 percent) have used Facebook for communication purposes daily.

7.3.5 Instagram and Interpersonal communication

To understand the extent to which respondents use Instagram for interaction. The respondents were asked questions; the following table shows the response to the question:

Table 7.10: I use Instagram ____ for interaction, post, comments, share etc

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Daily	194	48.5	48.5	48.5
weekly	49	12.3	12.3	60.8
Twice in month	25	6.3	6.3	67.0
Monthly	18	4.5	4.5	71.5
Hardly ever	87	21.8	21.8	93.3
Not use	27	6.8	6.8	100.0
Total	400	100.0	100.0	

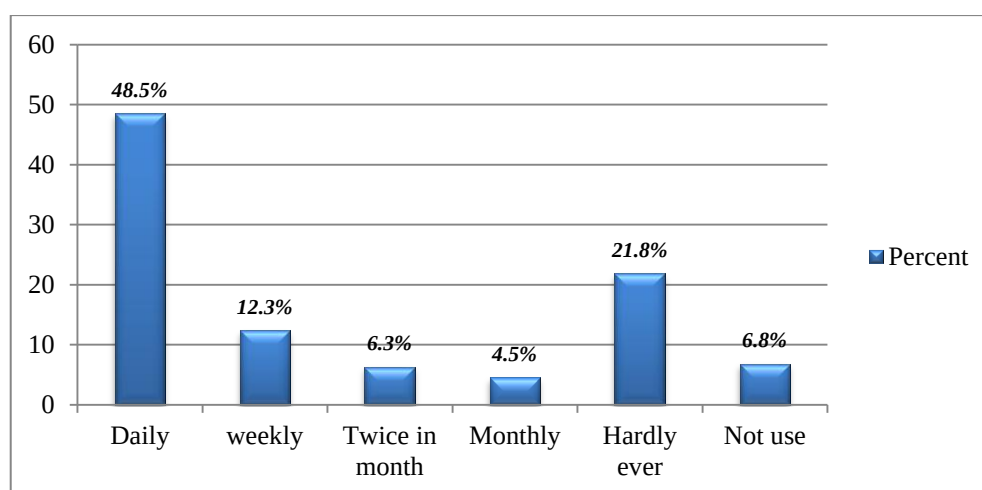


Figure 7.10: Percentage of Instagram use for interpersonal communication

The above table & figure shows the percentage of Instagram frequently used for interaction, post, comments, share, etc. Out of the total respondents, 48.5 percent of the respondents (n=194) replied daily, that they used Instagram on a daily basis for interaction, post, comments, share, etc. 12.3 percent of the respondents (n=49) replied weekly, that they used in a week Instagram for interaction, post, comments, share, etc. Whereas 6.3 percent, 4.5 percent (n= 25, 18) of the respondents replied that they used Instagram for interaction based on twice in a month, monthly basis and 21.8 percent of the respondents (n=87) hardly ever replied, that they hardly used

Instagram for interaction. 6.8 percent of the respondents (n=27) replied not to use, that they never used Instagram for interaction, post, comments, share, etc.

Thus, the data revealed that the majority of the respondents used Instagram daily for interaction, posts, comments, share, etc.

7.3.6 Google+ and Interpersonal communication

To understand the extent, to which respondents use Google+ for interaction. The respondents were asked questions; the following table shows the response to the question:

Table 7.11: I use Google+ ____ for interaction

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Daily	161	40.3	40.3	40.3
weekly	86	21.5	21.5	61.8
Twice in month	38	9.5	9.5	71.3
Monthly	41	10.3	10.3	81.5
Hardly ever	29	7.3	7.3	88.8
Not use	45	11.3	11.3	100.0
Total	400	100.0	100.0	

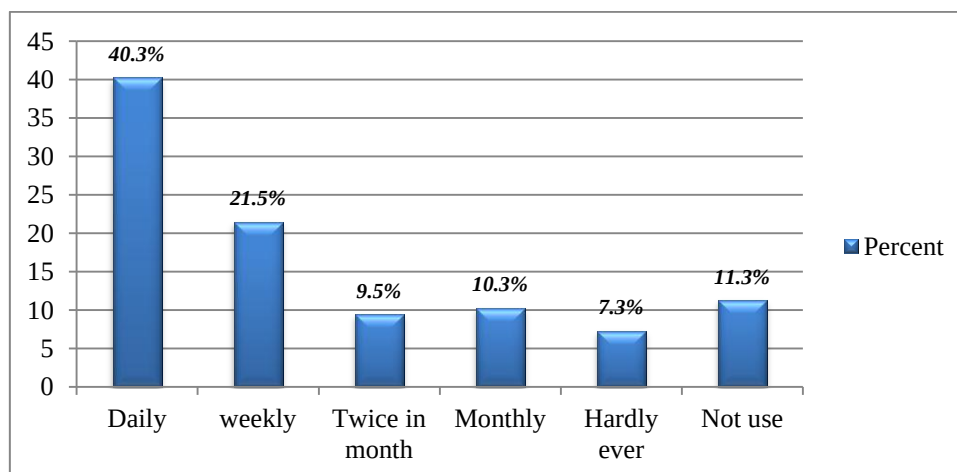


Figure 7.11: Percentage of Google+ use for interpersonal communication

The table & figure above clearly shows that the majority of respondents, i.e., 40.3 percent replied Daily out of total (n=400) respondents that they regularly have used Google+ for interaction. 21.5 percent of the respondents replied weekly that they used Google+ once in a week, 9.5 percent of the respondents replied twice in a month, and 10.3 percent replied monthly that they used Google+ once and twice in a

month. Whereas 7.3 percent of the respondents replied hardly ever and 11.5 percent of the respondents replied not to use, that they never used Google+ for any type of interaction. It indicates that the majority of respondents daily used Google+ for interaction.

7.3.7 LinkedIn and Interpersonal Communication

To understand the extent to which respondents use LinkedIn for interaction. The respondents were asked questions; the following table shows the response to the question:

Table 7.12: I used LinkedIn ____ for interaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	48	12.0	12.0	12.0
	weekly	49	12.3	12.3	24.3
	Twice in month	24	6.0	6.0	30.3
	Monthly	41	10.3	10.3	40.5
	Hardly ever	179	44.8	44.8	85.3
	Not use	59	14.8	14.8	100.0
	Total	400	100.0	100.0	

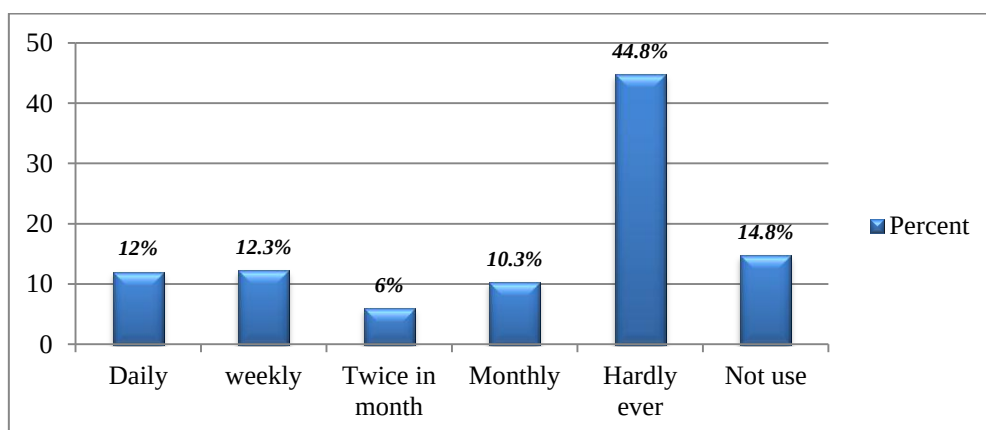


Figure 7.12: Percentage of LinkedIn use for interpersonal

The evidence from table & figure shows that out of total (n=400) respondents, the majority of respondents, i.e., 44.8 percent, hardly ever replied that they did not regularly use Linked In for interaction. Twelve percent of the respondents replied daily that they had used LinkedIn on a daily basis for interaction. 12.3 percent of the respondents replied weekly that they had used LinkedIn once a week. A very few (six percent) respondents replied that twice in a month and 10.3 percent replied monthly

that they used LinkedIn once and twice in a month, whereas 14.8 percent of the respondents replied not to use, that they never used LinkedIn for any type of interaction. It can be concluded from this data that the majority of respondents have hardly ever used LinkedIn for interaction, not a daily basis.

7.3.8 Myspace and Interpersonal Communication

To understand the extent to which respondents use Myspace for interaction. The respondents were asked questions; the following table shows the response to the question:

Table 7.13: I use Myspace ____ for interaction

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Daily	29	7.3	7.3	7.3
weekly	6	1.5	1.5	8.8
Twice in month	11	2.8	2.8	11.5
Monthly	10	2.5	2.5	14.0
Hardly ever	250	62.5	62.5	76.5
Not use	94	23.5	23.5	100.0
Total	400	100.0	100.0	

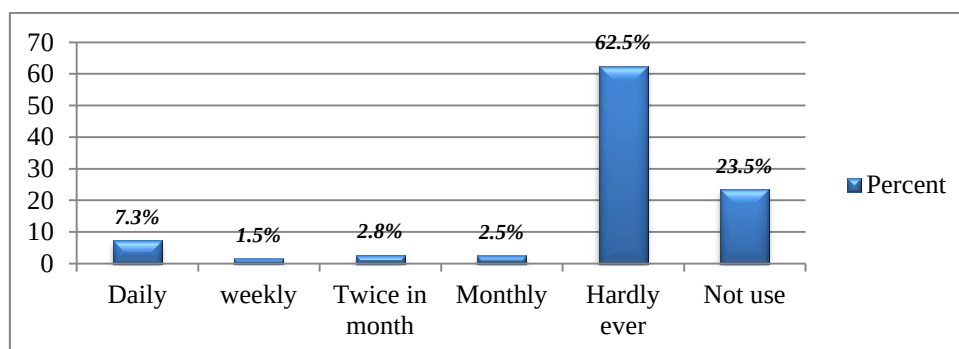


Figure 7.13: Percentage of Myspace use for interpersonal communication

The above table & figure shows the percentage of Myspace frequently used for interaction. Out of total (n=400) respondents, the majority of respondents i.e., 62.5 percent replied hardly ever, that they did not regularly use my space of interaction. 7.3 percent of the respondents replied daily that they used my space on a daily basis for interaction. 1.5 percent of the respondents replied weekly that they used Myspace once in week, 2.8 percent of the respondents replied twice in a month, and 2.5 percent replied monthly that they used My space once and twice in a month, whereas 23.5 percent of the respondents replied not use, that they never used My space for any type

of interaction. Therefore, it can be concluded that the majority of respondents have sometimes used my space for interaction, not a daily basis.

7.3.9 WeChat and Interpersonal communication

To understand the extent to which respondents use WeChat for interaction. The respondents were asked questions; the following table shows the response to the question:

Table 7.14: I use WeChat ____ for interaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	36	9.0	9.0	9.0
	weekly	6	1.5	1.5	10.5
	Twice in month	20	5.0	5.0	15.5
	Monthly	15	3.8	3.8	19.3
	Hardly ever	242	60.5	60.5	79.8
	Not use	81	20.3	20.3	100.0
	Total	400	100.0	100.0	

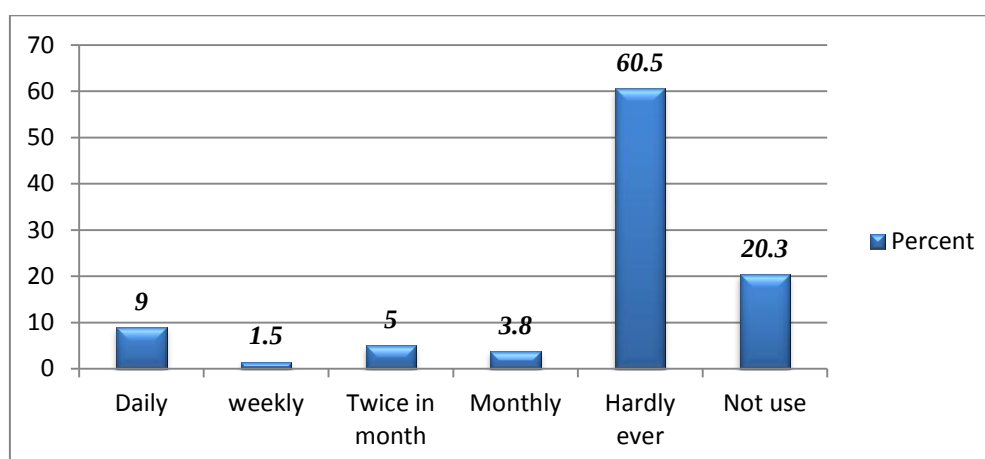


Figure 7.14: Percentage of WeChat use for interpersonal communication

The data presented above shows that more than half (60.5 percent) of the respondents have hardly ever replied that they have not regularly used WeChat of interaction. 9 % of the respondents replied daily that they had used WeChat on a daily basis for interaction. Very less, 1.5 percent of the respondents replied weekly, that they used WeChat once in a week. Five percent of the respondents replied twice in a month, and 3.8 percent replied monthly that they used WeChat In once and twice in a month, whereas 20.3 percent of the respondents replied not to use, that they have never used WeChat for any type of interaction. It revealed that the majority of respondents hardly used WeChat for interaction, not on a daily basis.

7.3.10 Skype and Interpersonal Communication

To understand the extent to which respondents use Skype for interaction. The respondents were asked questions; the following table shows the response to the question:

Table 7.15: I use Skype ____ for interaction

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Daily	33	8.3	8.3	8.3
weekly	23	5.8	5.8	14.0
Twice in month	35	8.8	8.8	22.8
Monthly	38	9.5	9.5	32.3
Hardly ever	216	54.0	54.0	86.3
Not use	55	13.8	13.8	100.0
Total	400	100.0	100.0	

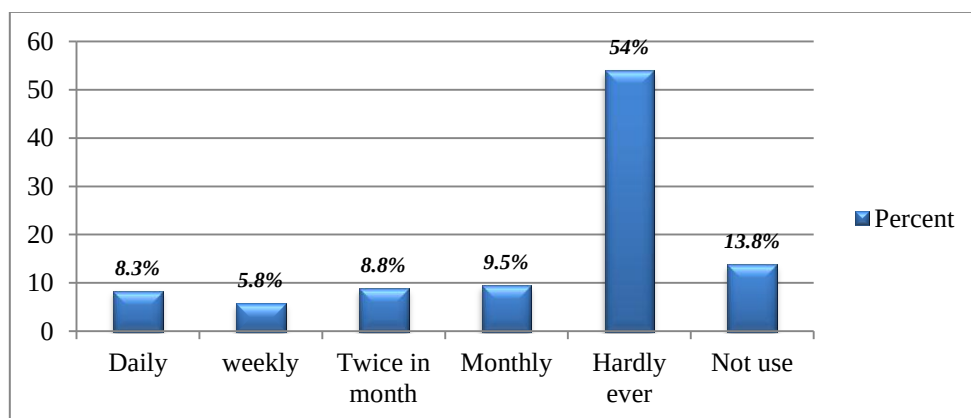


Figure 7.15: Percentage of Skype use for interpersonal communication

The above table & figure shows that the percentage of Skype frequently used for interaction. Out of the total (n=400) respondents, half of the respondents, i.e., 54 percent replied hardly ever, that they have not regularly used Skype for interaction. 8.3 percent of the respondents replied daily, that they had used Skype on a daily basis for interaction. 5.8 percent of the respondents replied weekly, that they had used Skype once in a week, 8.8 percent of the respondents replied twice in a month, and 9.5 percent replied monthly that they had used Skype once and twice in a month. Whereas, 13 percent of the respondents replied not to use, that they never used Skype for any type of interaction. It revealed that the majority of respondents sometimes used Skype for interaction, not a daily basis.

7.3.11 Snapchat and Interpersonal communication

To understand the extent to which respondents use Snapchat for interaction. The respondents were asked questions; the following table shows the response to the question:

Table 7.16: I uses Snachat _____ for interaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	63	15.8	15.8	15.8
	weekly	24	6.0	6.0	21.8
	Twice in month	13	3.3	3.3	25.0
	Monthly	7	1.8	1.8	26.8
	Hardly ever	226	56.5	56.5	83.3
	Not use	67	16.8	16.8	100.0
	Total	400	100.0	100.0	

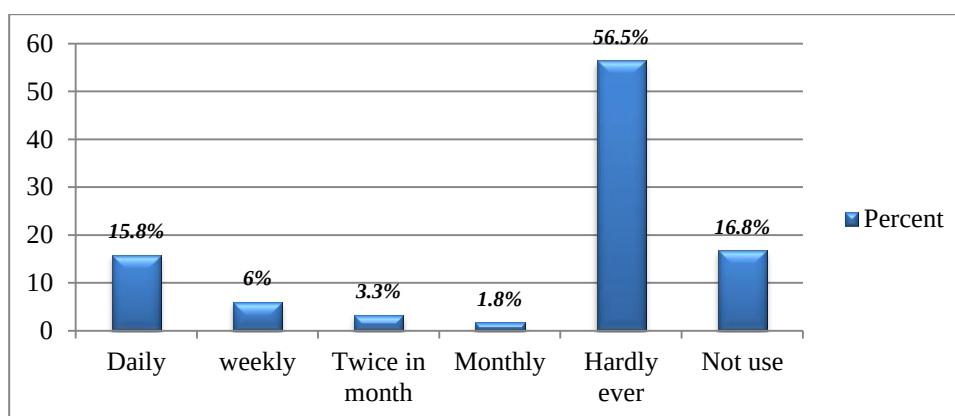


Figure 7.16: Percentage of Snapchat use for interpersonal communication

The evidence from table & figure shows that amongst (n=400) respondents, the majority of respondents, i.e., 56.5 percent replied hardly ever, that they have not regularly used Snapchat of interaction. 15.8 percent of the respondents replied daily, that they used Snapchat on a daily basis for interaction. 6 percent of the respondents replied weekly, that they used Snapchat once in a week, 3.3 percent of the respondents replied twice in a month, and 1.8 percent replied monthly that they used Snapchat once and twice in a month, whereas 16.8 percent of the respondents replied not use, that they never used Snapchat for any type of interaction. It shows that the majority of respondents sometimes used Snapchat for interaction, not a daily basis.

7.3.12 Easy and economical communication

It is necessary to know the reason behind the use of ICTs for Interpersonal communication. To find out the reason, the researcher asked the respondents that

ICTs (Internet, social networking site etc.) is very easy and economical medium for communication. The below table & graph represented answers and reasons for the frequent use of ICTs.

Table 7.17: It makes communication very easy and economical

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	5	1.3	1.3	1.3
Neither agree or Disagree	26	6.5	6.5	7.8
Agree	369	92.3	92.3	100.0
Total	400	100.0	100.0	

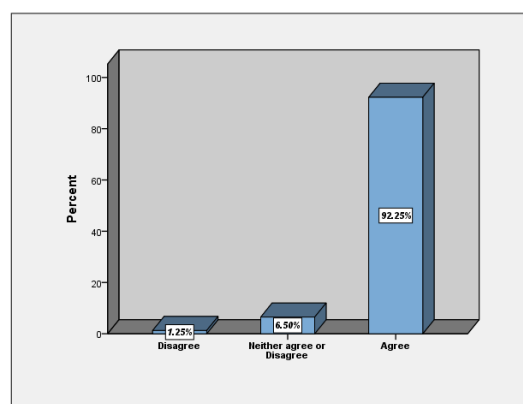


Figure 7.17: Percentage of easy and economical communication

The table & figure above clearly shows that the majority of the respondents (92.3 percent) were agreed with the statement that the technology (ICTs) makes interpersonal communication easy, economical, and fits in the budget. It was also found that very few of them (6.5 percent) neither agreed or disagreed in answering their perception about the statement. One of the striking features of this data is that a large majority of the respondents have given a clear opinion about the statement. The respondents in very less majority seem to be in a state of confusion (neither agree or disagree,) and only 1.3 % of the respondents disagreed about the statement. This shows that the frequency of agreed respondents was dominating and the study found that ICTs made communication easy and economical.

7.3.13 Safe and Secure Communication

Nowadays, ICTs are being used for personal, private, and professional communications. It is being used not only for communication but also for protecting bank accounts, pin codes, and other confidential data and information. To know the

use of ICTs for security purposes, the researcher tries to know that ICTs safe and secure for personal and professional communication or not. The following table and graph show the answers of the respondents on the basis of collected data:

Table 7.18: It's safe and secure for personal and professional communication

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	101	25.3	25.3	25.3
Neither agree or Disagree	166	41.5	41.5	66.8
Agree	133	33.3	33.3	100.0
Total	400	100.0	100.0	

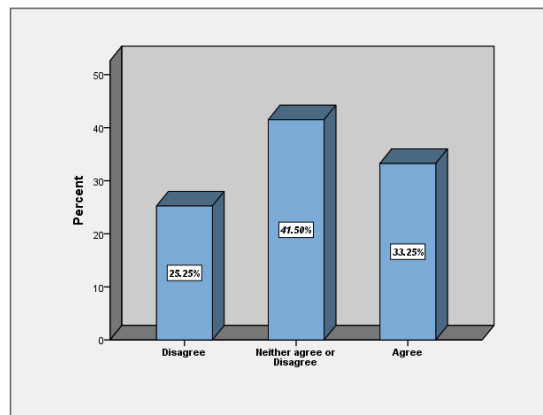


Figure 7.18: Percentage of safe and secure for personal and professional communication

The collect data presented in the above table & figure demonstrates that ICTs safe and secure for personal and professional communication or not. An overwhelming majority (41.5 percent) of the respondents (n=166) replied that neither agree or disagree about the statement. During the survey and interaction with the respondents, the researcher observed that they want to say, *“It sometimes safe and secure for confidential information, but we cannot blindly believe in it.”* 33.3percent of the respondents (n=133) immediately answered that ICTs completely safe and secure for Personal and Professional communication, whereas 25.3 percent of respondents (n=101) thought a little and said that it is not safe and secure for personal and professional communication. The field observation by the researcher and collected data results revealed that, with strong security and password, ICTs safe and secure for personal and professional communication.

7.3.14 Makes People open & frank

Many studies say that during communication through audio calls, messaging, online chatting, and video chatting, people, get more open. Through this, they interact

more frankly and openly than Face-to-Face communication. To find out this fact, that really ICTs makes and gives a platform to people for frankly and openly conversation, the researcher asked this question to the respondents and got the following reply, which shows table:

Table 7.19: I am more open & frank when use ICTs for communication with each other

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	89	22.3	22.3	22.3
Neither agree or Disagree	127	31.8	31.8	54.0
Agree	184	46.0	46.0	100.0
Total	400	100.0	100.0	

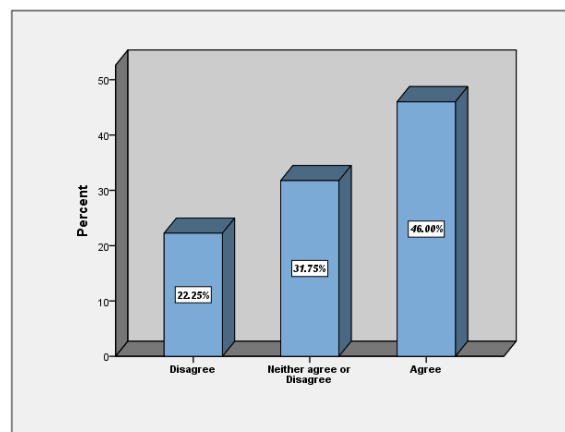


Figure 7.19: Percentage of ICTs makes people open & frank

It is evident from the table & figure presented above that an overwhelming majority (46 percent) of the respondents said audio calls, messaging, online chatting, and video calls are the platforms where we can communicate without any hesitation and openly. 31.8 percent of respondents replied with some confusion neither agree or disagree that it depends on personal behaviors, and in the same way, 22.3 percent of respondents (n=89) replied disagree that this is completely not true. Therefore, the above-collected data revealed that the digital platforms for interpersonal communication make shy and unconfident people more open and frank, or we can say it has provided the way of communication to that type of person.

7.3.15 Makes Separate and Busy

The study wanted to find out that Information and communication technologies (ICTs) are the reason for the separation and social isolation of individuals. The study also wanted to find out that ICTs keep busy individuals in their

virtual world or not. In order to understand it, the researcher asked this question to the respondents and got the following answered, which shows in table 7.20:

Table 7.20: It is making people separate and busy in their daily life

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	65	16.3	16.3	16.3
Neither agree or Disagree	128	32.0	32.0	48.3
Agree	207	51.8	51.8	100.0
Total	400	100.0	100.0	

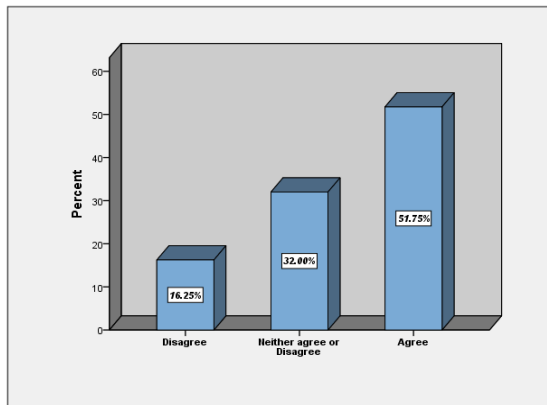


Figure 7.20: Percentage of makes Individuals Separate and Busy

As is indicated in table & figure, out of n=400 respondents, 51.8 % of the respondents (n=207) cited agree that ICTs break the social interaction, it makes people isolated and keeps away from society. It keeps individuals busy, which is the main reason for separation and isolation. In the same way, 32% of the respondents (n=128) have mentioned in their answer neither agree or Disagree that means ICTs may be a reason for the separation of individuals or maybe not. They replied without any doubt, ICTs engage individuals in their virtual world, which is also a part of socialization and digital interactions, and 16.3% of respondents (n=65) completely disagree that ICTs do not keep separate and engaged individuals. It provides a platform for the person to interact and makes people more open and social.

Based on this, it was found that in the real world, ICTs create a state of isolation and separation of individuals, and in the virtual world, it made people more interactive and more social.

7.3.16 Expressions and feelings as similar to FTF Communication

The study sought to find out that voice calls, messaging, online chatting, video calls, emails etc. conveys all expressions and feelings of individuals similar to face-to-

face communication or not. Information and Communication Technologies makes an impact on individuals similar to face-to-face communication or not. To find out whether ICTs is similar to face-to-face communication or not, the researcher asked the respondents this questions:

Table 7.21: It conveys all my expressions and feelings as similar to face to face communication

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	196	49.0	49.0	49.0
Neither agree or Disagree	96	24.0	24.0	73.0
Agree	108	27.0	27.0	100.0
Total	400	100.0	100.0	

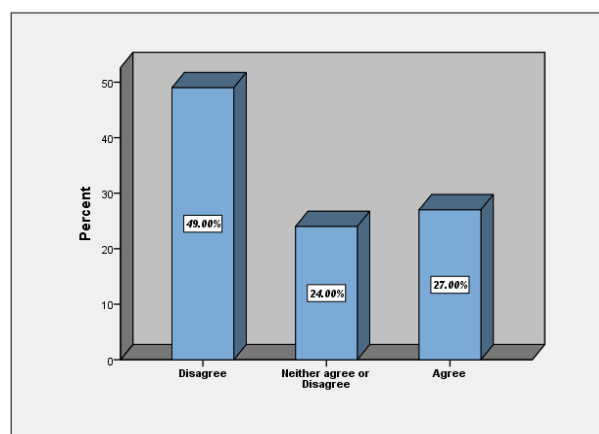


Figure 7.21: Percentage of convey expressions and feelings as similar FTF

Table & figure above shows a summary of the findings. Amongst the n=400 respondents, 27 percent of respondents (n=108) said that agree because nowadays, the internet and social networking sites deeply involved in our day-to-day life and become a part of it.

ICTs are a way of frequent interaction with relatives, family, friends, etc., so it conveys all feelings and expressions as similar to face-to-face communication, and 24 percent of respondents said that neither agree or disagree, according to them sometimes it does or not. At the same, time-based on collected data majority of respondents, i.e., 49 percent, said completely disagree that ICTs are not able to convey all expression and feeling similar to face-to-face communication. The collected data revealed that on the basis of majorities ICTs are not conveys all emotions, feelings, and expressions equal to face-to-face communication.

7.3.17 Helps to Maintain Relationships

Communication technologies have a different type of effect on a relationship. It can be negative and positive. ICTs provide a comfortable and economical platform for communication, where we can message, calls, video chat Many times in a day. In order to understand the role of technology (ICTs) to maintain relationships, respondents were asked question by the researcher, “ICTs helps to maintain relationships”:

Table 7.22: Use of ICTs helps to maintain relationships

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Improved	99	24.8	24.8	24.8
	Unimproved	23	5.8	5.8	30.5
	Smooth	177	44.3	44.3	74.8
	Strained	26	6.5	6.5	81.3
	No effects	75	18.8	18.8	100.0
	Total	400	100.0	100.0	

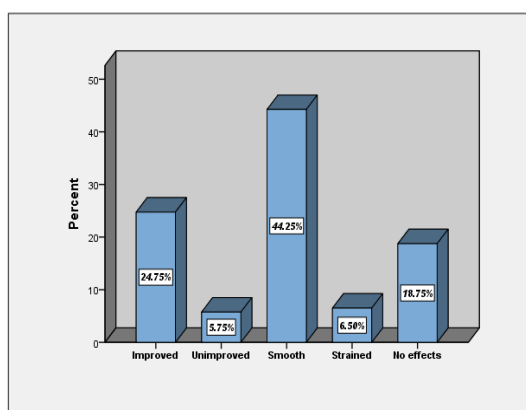


Figure 7.22: Percentage of Use of ICTs helps to maintain relationships

The above table clearly shows that most of the respondents (44.3 percent) have agreed with the statement that various platforms of ICTs help in maintaining different relationships because through this, we can connect and communicate with others at any time and from anywhere. It also makes, possible to maintain a long-distance relationship smoothly because, from time to time, and frequent communication makes our relationship strong and smooth.

Whereas a quarter (24.8 percent) of the respondents said that ICTs had provided platforms for regular basis communication that improved and maintained relationships. In the same way, a very few 5.8% of respondents said that it an unimproved relationship, 6.5 % of the respondents said it is strained the relationship.

In contrast, 18.8 % of respondents said that ICTs make no effect on the relationship. It can be concluded from this data that various platforms of ICTs help to maintain relationships and make relationships smooth and robust.

7.3.18 Maintains social interaction and activity

Technology has created a virtual society and world for interaction. Where can individuals place their social status and activities? Some studies mentioned that the virtual world is the second world of socialism, giving us a platform to be a part of various national and international activities. To understand this, the respondents were asked question "whether different social networking sites maintain social interaction and activities or not":

Table 7.23: Social networking site maintains social interaction and activity

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	56	14.0	14.0	14.0
Neither agree or Disagree	98	24.5	24.5	38.5
Agree	246	61.5	61.5	100.0
Total	400	100.0	100.0	

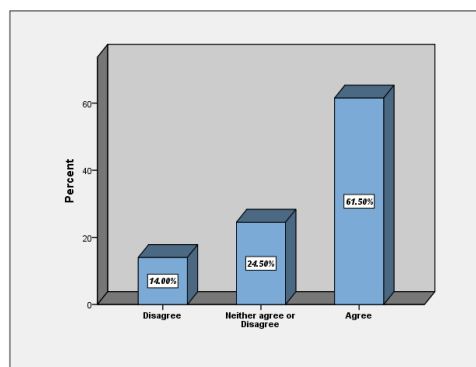


Figure 7.23: Percentage of Use of ICTs helps to maintain social interaction and activity

As evident from the table & figure Amongst N=400 respondents, almost 61.5 percent of the respondent (n=246) were answered agreed that all platform of social networking sites maintains social interaction and gives a chance to be a part of different type of social activities. Whereas 24.5 percent of the respondents (n=98) were answered neither agree or disagree, while very less only 14% of the respondents (n=56) answered Disagree.

On the basis of majorities, the collected data revealed that the technology-Mediated virtual world, where all social networking sites, internet, and different

websites are the medium of interacting in the virtual world, maintained social status and gave a chance to be a part of different activities and issues.

7.3.19 Improve and build confidence

In real-time interaction (face-to-face), some people feel shy and hesitate to communicate frequently. Some studies have stated that the internet and social networking sites are a platform where people interact without any hesitation because here, they do not face each other. To understand this, the respondents were asked the question, which is presented in the following table:

Table 7.24: I use social networking sites to improve and build my confidence.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	172	43.0	43.0	43.0
	Neither agree or Disagree	108	27.0	27.0	70.0
	Agree	120	30.0	30.0	100.0
	Total	400	100.0	100.0	

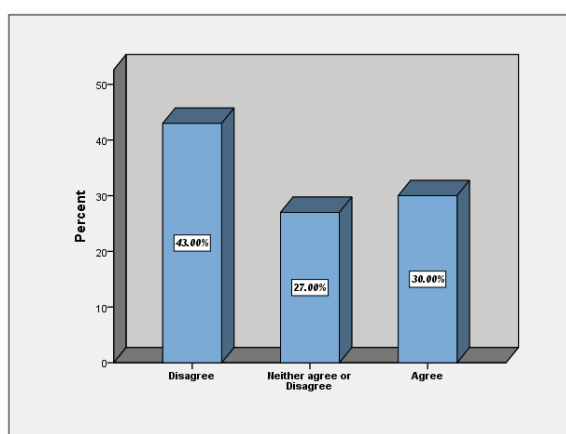


Figure 7.24: Percentage of use of social networking sites to improve and build confidence

On the basis of collected data majorities of respondents disagreed that it is not necessary that social networking sites build and improve confidence. As shown in table 4.9 out of n=400 respondents, 30 percent of the respondents (n=120) replied agreed that on social networking sites, the internet etc. we can interact with each other without any hesitation. Twenty-seven percent of the respondents (n=108) replied neither agree or disagree, while the majority of respondents, i.e., 43 percent, replied Disagree.

The most surprising feature of this data is that it shows social networking sites have not built and improve confidence among respondents. It indicated that social networking sites have facilitated people for communication, gave a chance to make

their view, provided a virtual world for socialized, gave a chance to update with trendy information, and gave a platform to learn. It depends on people how they used it. Therefore, this researcher observed that only slightly differences in respondents' views, but majorities of disagreed about this statement.

7.3.20 Relieves stress on bad time

Some studies discussed that when people feel low and stress, they share your feeling on social networking sites, where known and unknown friends comment on issues. Which sometimes helps to relieve the stress? To understand this, the respondents were asked the question, which is presented in the following table:

Table 7.25: Use of Social networking sites help to relieve stress because when I post the stressor, friends and family post comforting comments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	104	26.0	26.0	26.0
	Neither agree or Disagree	104	26.0	26.0	52.0
	Agree	192	48.0	48.0	100.0
	Total	400	100.0	100.0	

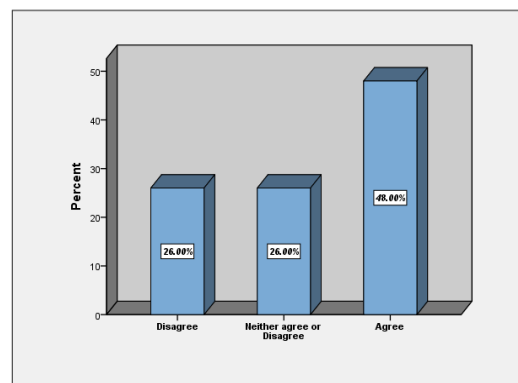


Figure 7.25: Percentage of social networking sites keep comfort and relieve stress

From the above table & figure, it is evident that the majority of the respondents that are n=192 (48 percent) of them, agreed that social networking sites help to relieve stress when known and unknown friends post positive comments on stressor issues. At the same time, 104 (26 percent) of the respondents have felt that social networking sites neither increase stress or provide relief. In the same, the respondents have also felt that social networking sites increase stress than relief. The data revealed on the basis of majorities that the internet and social networking sites help to relieve stress.

7.3.21 Makes an opinion on burning issues/movements

Social media was played a very prominent role in the 2008 election of America and the 2014 election of India. Even in the Anna Hazare movement internet and different social networking site played a very important role. Many studies say that only because of the internet and social media, ordinary people able to make your opinion on a different type of social movement and issues. Some studies say that the internet and social media is a symbol of freedom of expression and equality. This gives a chance equally to everyone to be a part of social movement/issues. To understand this, the respondents were asked the question, which is presented in the following table:

Table 7.26: I feel social networking sites give me a chance to make an opinion on any burning issues/movements.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	29	7.3	7.3	7.3
Neither agree or Disagree	73	18.3	18.3	25.5
Agree	298	74.5	74.5	100.0
Total	400	100.0	100.0	

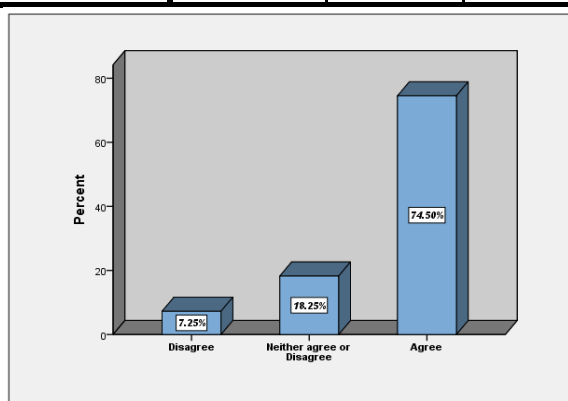


Figure 7.26: Percentage of make an opinion on burning issues/movements

It is evident from the table & figure shown above that near about two-third (74.5 percent) of the respondents agree that social media and internet is the big platform where people able to make their opinion on any burning issues. They said that it gives the chance to be part of a social movement. While 18.3 percent of the respondents (n=73) replied neither agree or disagree, and very few 7.3 percent of the respondents (n=29) replied disagree that it does not provide a chance to make an opinion on burning issues/ movement.

Therefore, it can be concluded that the overwhelming majority of the respondents agreed that the internet and social networking site is the platform, which provides us a chance to be a part of burning issues/movement.

7.4 Influence of Information and Communication Technologies on Face-to-Face Communication

7.4.1 Gaps in Face-to-Face communication

The use of communication technologies (ICTs) for interaction is similar to face-to-face communication or not. The use of ICTs for interaction is replacing face-to-face communication or not. To understand this, respondents were asked whether ICTs bring gaps in face-to-face communication. The following table shows the data of the answer given by the respondents.

Table 7.27: ICTs (Internet, social networking sites etc.) brings Gaps in face-to-face communication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	70	17.5	17.5	17.5
	Neither agree or Disagree	93	23.3	23.3	40.8
	Agree	237	59.3	59.3	100.0
	Total	400	100.0	100.0	

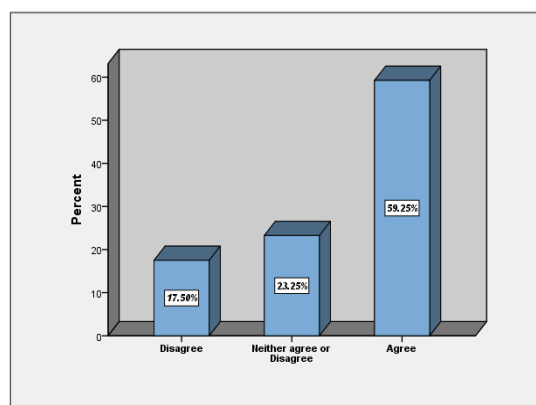


Figure 7.27: Percentage of ICTs brings Gaps in face-to-face communication

It is obvious from the above table & figure that the overwhelming majority of the respondents (59.3 percent) have agreed that ICTs provided an easy and convenient platform to interact, which filled the requirement of face-to-face communication and made gaps in this. Whereas, 23.3 % of the respondents (n=93) have answered that neither agree or disagree. They said, sometimes and in some situations, ICTs replaces face-to-face communication, not always because, in some situations, face-to-face

communication is more effective than technology-mediated communication. Besides, 17.5 percent of the respondents (n=70) have thoroughly answered disagree that Technology-Mediated communication does not make a gap in face-to-face communication because it depends on individuals choice. So based on the data, it can be concluded that Technology – mediated communication is replacing face-to-face communication.

7.4.2 Save time and money, Provides a platform to communicate around the world

Many studies argued that communication through technology saves time, money, and provide a platform to communicate over the world, which is not possible with face-to-face communication. It has made communication way very easy and economical. To understand this, the respondents were asked the question, which is presented in the following table:

Table 7.28: ICTs saves my time and money because I can talk anytime and anywhere around the world which is not possible in face-to-face communication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	12	3.0	3.0	3.0
	Neither agree or Disagree	53	13.3	13.3	16.3
	Agree	335	83.8	83.8	100.0
	Total	400	100.0	100.0	

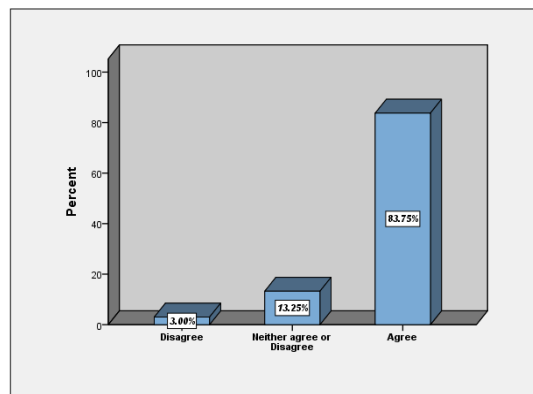


Figure 7.28: Percentage of save money, time, and provide a platform to communicate around the world

The data presented above clearly show that an overwhelming majority (83.8 percent) of the respondents have agreed about the statement that ICTs saved money and time, and provided a platform to communicate around the world. Whereas, less 13.3 percent of the respondents (n=53) replied neither agree or disagree, and 3 percent of respondents (n=12) replied completely disagree with this statement. Therefore, it

can be concluded that technology-mediated communication has saved money and time while face-to-face communication consumes time. Through face-to-face communication, people cannot talk from about different places at the same time, but technology provides us this opportunity.

7.4.3 Virtual society for socialization

Some studies discussed virtual society, virtual life, and the virtual world, which is the second life of communication. The virtual societies created by ICTs, where individuals communicate with others, got socialize, and enjoy your life in their own way. To understand this, the respondents were asked the question, which is presented in the following table:

Table 7.29: ICTs is providing us second life and society for social interaction which is a virtual world, where we can interact globally

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	21	5.3	5.3	5.3
Neither agree or Disagree	88	22.0	22.0	27.3
Agree	291	72.8	72.8	100.0
Total	400	100.0	100.0	

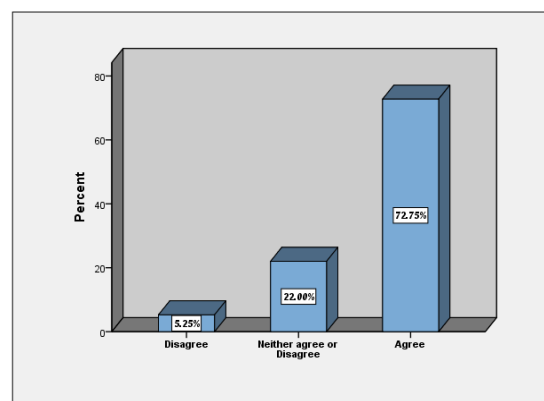


Figure 7.29: Percentage of second life and society for social interaction

From the above table & figure, it is evident that the majority of the respondents that is $n = 291$ (72.8 percent) they agreed about the statement that ICTs provide a second virtual society for socialization. Whereas, $n=88$ (22 percent) of respondents have felt that maybe it provided or maybe not. Very few respondents, near about five point five percent of them said disagree and completely denied this statement.

Based on this, data revealed that ICTs had provided a separate virtual world for communication, which is not proper real. It is also true that ICTs provided the second world to live and gave a platform to get socialize, to maintain a relationship, to make your own opinion on any burning issue, to make your agenda, etc.

7.4.4 Avoiding friends, family and colleagues, when using ICTs

Many studies argued that ICTs keeps people busy, and many argued that not. To understand that 'is really someone feels bad, if he /she with their family, friends, and colleagues, and other members are busy with their phone laptop. The respondents were asked question; the following table & figure represented the data of respondents' answers.

Table 7.30: I feel bad when I am with my close friends, family and colleagues and they are busy with their phones and laptops

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	32	8.0	8.0	8.0
Neither agree or Disagree	65	16.3	16.3	24.3
Agree	303	75.8	75.8	100.0
Total	400	100.0	100.0	

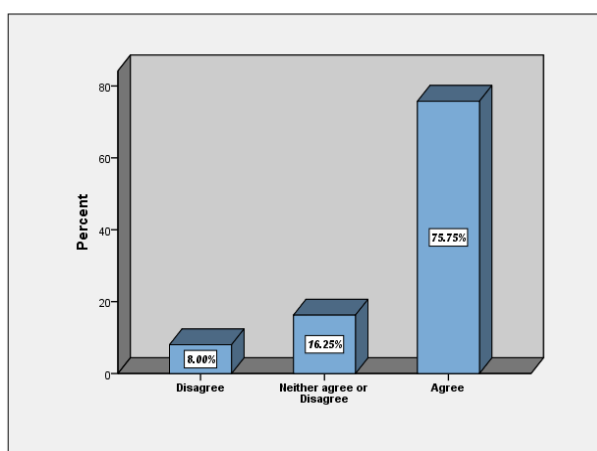


Figure 7.30: Percentage of individuals busy with friends and family

It is obvious from the above table & figure that the overwhelming majority of the respondents (75.8 percent) have agreed from this statement. Whereas 16.3 percent of the respondents have replied that maybe or maybe not and very few (8 percent) respondents have said disagree means they deny this statement.

Therefore, the data revealed on the basis of majorities that individuals feel bad when he/she with their friends, family, colleagues etc. and they are busy with their phone and laptop.

7.4.5 Less interest in face-to-face communication

The advancement of technology has attracted and engaged people anywhere. To guess that if someone is with another person, then at that time, he gives more importance to his phone and laptop or likes to interact with that person. To understand this, the respondents were asked the question, which is presented in the following table and figure:

Table 7.31: when individuals are busy with phones and laptops they don't take interest in face-to-face communication

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	26	6.5	6.5	6.5
Neither agree or Disagree	58	14.5	14.5	21.0
Agree	316	79.0	79.0	100.0
Total	400	100.0	100.0	

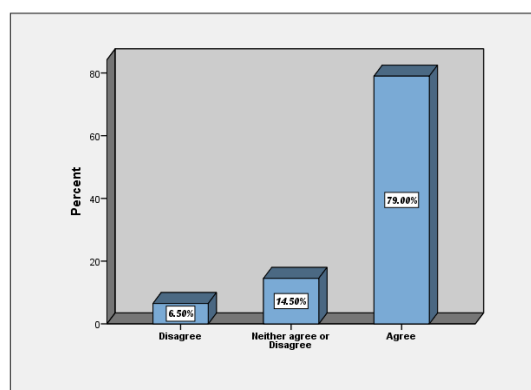


Figure 7.31: Percentage of preference of ICTs compare to face-to-face communication

It is evident from the table & figure given above that more than two-third (79 percent) of the respondents have answered agree that individuals less take an interest in face to face communication when they carry their mobile and laptops, and 14.5 percent answered neither agree or disagree. Whereas very few, 6.5 percent of the respondents have answered, disagree that this is not true because communication totally depends on necessity and situation. Therefore, the data revealed on the basis of majorities that individuals take less interest in face to face communication if they have their mobiles and laptops.

7.4.6 Connect anytime, anywhere than face-to-face communication

Nowadays, ICTs made communication very easy and economical. Therefore, through the help of ICTs we can communicate with each other many times and

anywhere around the world, which is not possible through face-to-face communication. In order to understand that it is true or not, respondents were asked questions, which is presented in the following table & figure:

Table 7.32: I can talk to my family, friend, colleagues, teacher, acquaintances etc many times in a day, if am not with them. Which is not possible in face to face communication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	31	7.8	7.8	7.8
	Neither agree or Disagree	71	17.8	17.8	25.5
	Agree	298	74.5	74.5	100.0
	Total	400	100.0	100.0	

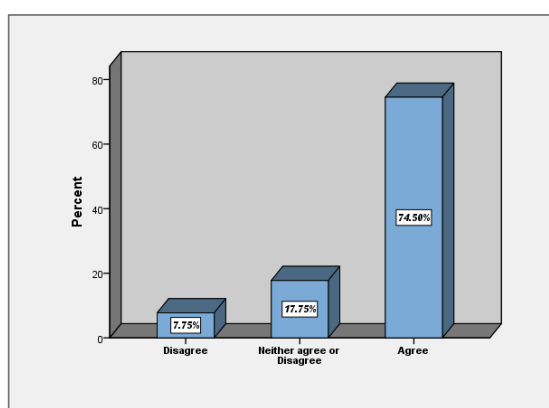


Figure 7.32: Percentage of talk many times in a day

As evident from the above data, Majorities of respondents (n=298), i.e., 74.5 percent have answered agreed out of n=400 respondents, that through the help of ICTs we can talk with family, friends, colleagues, teachers, acquaintance, etc. many times and around the world in a day. However, face-to-face communication is not possible, while 17.8 percent of the respondents (n=71) answered neither agree or disagree. While very few near about eight percent of the respondents have (n= 31) answered disagreed. The data revealed that majorities of respondents agree, so it is true that ICTs provides facility to connect any time anywhere.

7.4.7 Advancement of the Internet and social networking sites barrier in talk on phone

In the age of technology, personal and physical presence is not necessary. A social networking site and the internet provides us different types of a platform for interaction, shopping, learning etc. that makes individuals separated. This means technology fills the personal and physical space between the individuals. Now people avoid the talk on the phone with face-to-face communication; also, it is because of

facilities of social networking sites such as video calls, chatting, and hyperpersonal communication patterns (emoticons, emojis, stickers, gif, textisms etc.).

Table 7.33: I feel that due to the internet and social networking sites now people avoided talking on the phone.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	70	17.5	17.5	17.5
Neither agree or Disagree	93	23.3	23.3	40.8
Agree	237	59.3	59.3	100.0
Total	400	100.0	100.0	

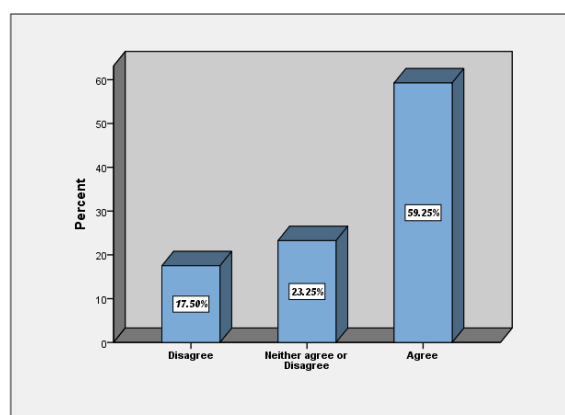


Figure 7.33: Percentage of internet and social networking sites replace talk on phone communication

It is evident from the table & figure above that the majority of the respondents, i.e., 59 percent of them have replied agree that now people avoided the talk on the phone also as face-to-face communication. 23.3 percent of the respondents have replied neither agree or disagree, while 17.5 percent of the respondents have replied completely disagreed that the internet and different type of website is not a barrier to talk on phone-based interaction.

The data revealed on the basis of majorities that the internet, all social networking sites, websites, etc., are now becoming a major barrier for a talk on phone-based communication.

7.5 Uses and importance of Digital Non-verbal cues (Emoticons “:-)” and Emojis 🤗) in Interpersonal communication

7.5.1 Emoticons (“:-)”, “:-P”) and Emojis (🤗🤗)

For understand the use of emoticons and emojis in communication, it is mandatory to know that individuals are familiar and know about emoticons and

emojis or not. They are using emoticons and emojis for communication or not. For this, respondents were asked to that do you know about emoticons and emojis or not. The below table and graph show the answer to this question on the basis of collected data.

Table 7.34: Do you know about Emoticons (:-), :-P)/ Emojis.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	382	95.5	95.5	95.5
	No	18	4.5	4.5	100.0
	Total	400	100.0	100.0	

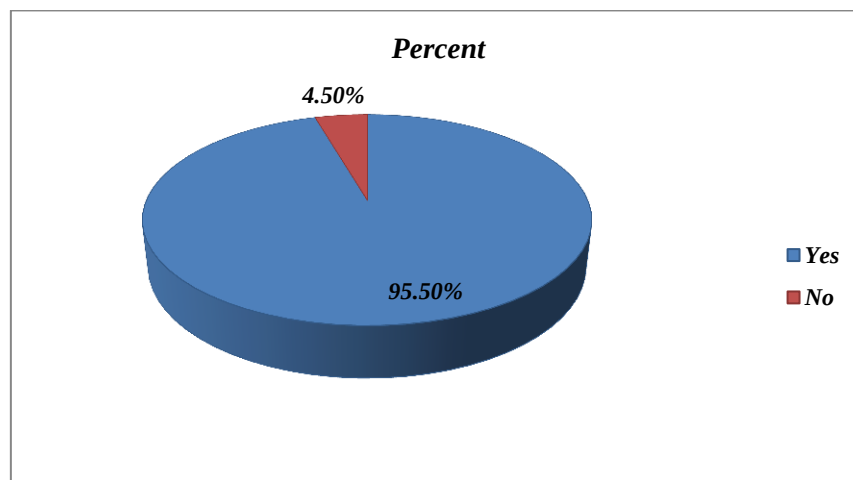


Figure 7.34: Percentage of know about Emoticons (:-), :-P) and Emojis (🙋🏻🤔)

It is evident from the table & figure shown above that the overwhelming majority (95.5 percent) of the respondents know and familiar with the emoticons and emojis. Whereas very few (4.5 percent) respondents have do not know about the emoticons and emojis, and even they never heard and seen emoticons and emojis. It can be concluded that the majority of the respondents know about the emoticons and emojis and use it for communication purposes.

7.5.2 Platform, first time saw emoticons and emojis (🙋🏻🤔)

To know for how individuals know about emoticons and emojis, and which platform introduce them the first time with emoticons and emojis. To understand this, the respondents were asked the question, which is presented in the following table:

Table 7.35: I saw first time Emoticons and Emojis (👉👉) on ____.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Whatsapp	179	44.8	44.8	44.8
Facebook	139	34.8	34.8	79.5
Twitter	4	1.0	1.0	80.5
Instagram	3	.8	.8	81.3
Messaging/SMS	55	13.8	13.8	95.0
Others	20	5.0	5.0	100.0
Total	400	100.0	100.0	

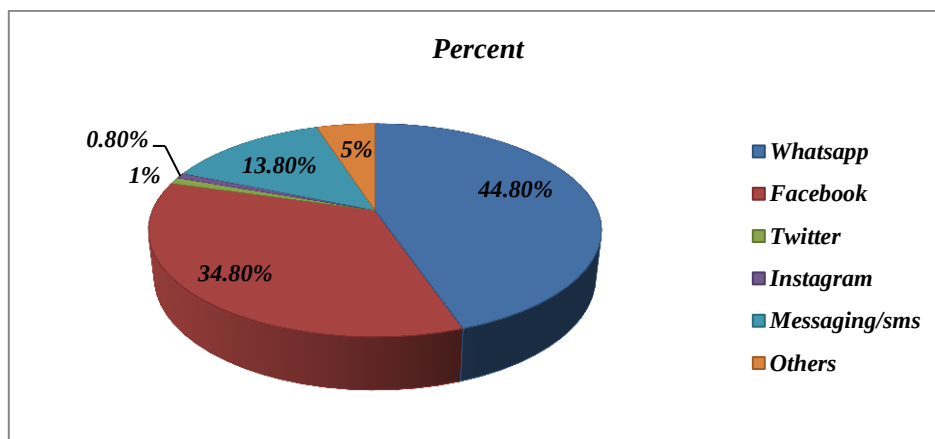


Figure 7.35: Percentage of first time saw emoticons and emojis platform

It is evident from the table & figure above that near about half of the respondents (44.8 percent) had seen first-time emoticons and emojis on Whatsapp from the given selective platform, and Whatsapp introduced the first time with emoticons and emojis to the respondents whereas 34.8 percent of the respondents had first time seen it on Facebook. 13.8% had seen it on SMS/Messaging the first time. Very few respondents had seen first-time emoticons and emojis on twitter, Instagram, and other sites. The table and graph data revealed that Whatsapps was the first platform that introduced the majority of respondents to emoticons and emojis, and the second most platforms were Facebook.

7.5.3 Types of communication and Emoticons and Emojis 🍰🐱

Human Communication is divided into two parts formal and informal communication. Formal communication uses to maintain professional ties, whereas informal communication use for personal ties. To understand this, the respondents were asked the question, which is presented in the following table & figure:

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Formal communication (teachers, seniors etc.)	7	1.8	1.8	1.8
Informal communication (friends, family etc)	318	79.5	79.5	81.3
Both	75	18.8	18.8	100.0
Total	400	100.0	100.0	

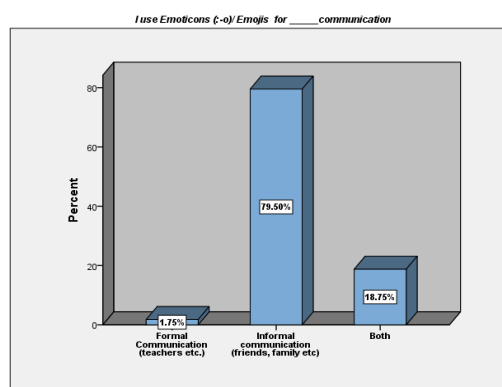


Figure 7.36: Percentage of uses of emoticons and emojis in communication

From the above table & figure, it is evident that the majority of the respondents, that is n=318 (79.5 percent) of them have used emoticons and emojis for Informal communication. Means majorities used emoticons and emojis to communicate with family, friends, relatives, love relationships, classmates, etc., whereas n=75 (18.8 percent) of the respondents have used emoticons and emojis for both types of communication. Very few respondents, near about two percent have used emoticons and emojis for formal communication.

Therefore, it can be clearly observed from the data that the majority of the respondents have used emoticons and emojis for informal communication

7.5.4 Platforms and Emoticons/Emojis 😊

Many studies discussed that use of Emoticons and Emojis is becoming common. Every text-based platform provides Emoticons and Emojis for communication. For understand this, which platform individuals most used for Emoticons and Emojis based communication, respondents were asked question; which is presented in the following table & figure:

Table 7.37: I frequently use _____ for Emoticons/ Emojis/smiley 🤔 based communication

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Whatsapp	368	92.0	92.0	92.0
Facebook	9	2.3	2.3	94.3
Messaging (SMS)	13	3.3	3.3	97.5
Email	4	1.0	1.0	98.5
Instagram	3	.8	.8	99.3
Twitter	1	.3	.3	99.5
Others	2	.5	.5	100.0
Total	400	100.0	100.0	

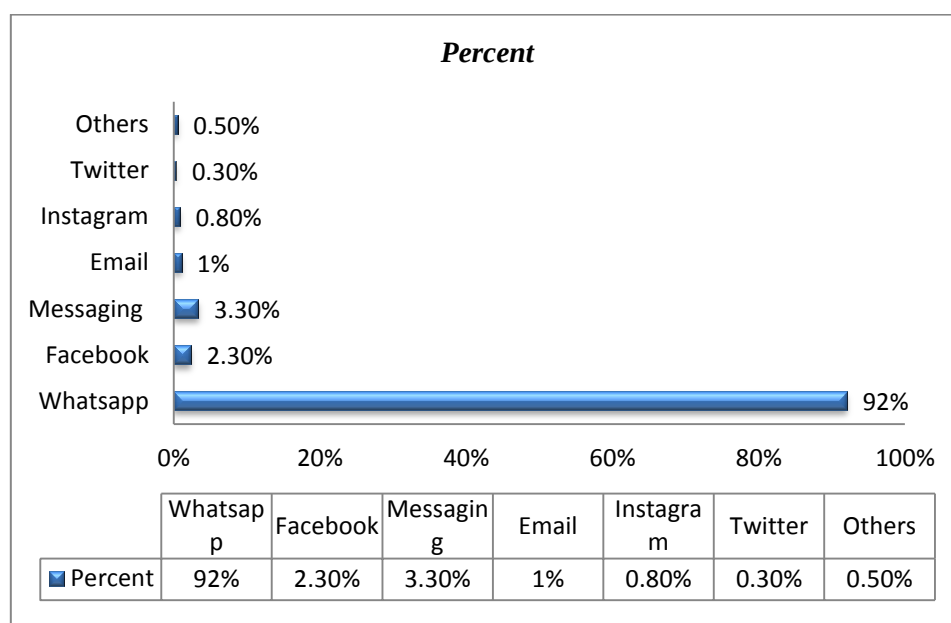


Figure 7.37: Percentage of platform uses for emoticons and emojis 🤔 based communication

It is quite clear from the table & figure that an overwhelming majority of respondents (92 percent) have used Whatsapp for emoticons and emojis-based communication because of it very handy and easy in use. Very few of the respondents have frequently used it on Facebook, messaging, emails, Instagram, twitters, and other websites, according to this data.

It can be concluded that the overall respondents used Whatsapp for more for emoticons and emojis based communication.

7.5.5 Makes text easier than words 🤔❤️

On the basis of some studies, emoticons and emojis are expressions based medium of communication. Through which we can express our feelings and emotions

as like as we do in face-to-face communication. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.38: Emoticons / Emojis 🤖 makes texting easier than words

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	49	12.3	12.3	12.3
	Neither agree or Disagree	58	14.5	14.5	26.8
	Agree	293	73.3	73.3	100.0
	Total	400	100.0	100.0	

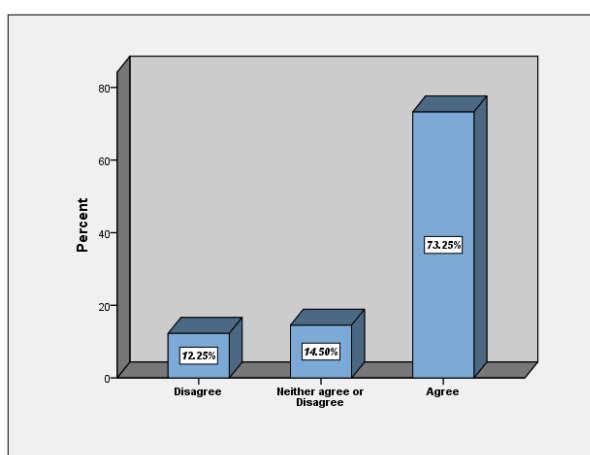


Figure 7.38: Percentage of Emoticons / Emojis 🤖 makes texting easier than words

The above table & figure shows that emoticons and emojis make texting easier than words or not. This found that a large majority of respondents (73.3 percent) have said that during communication use of emojis than the word is easy because it takes only one second to type. While word takes more time than emojis. Without any doubt used of emoticons and emojis made texting easier. Whereas 14.5 percent of respondents have said maybe or maybe not they not properly sure about it, and some respondents have completely denied the statement they said Emoticons and Emojis do not make text easy.

Therefore, it can be concluded that the majorities of respondents Agree that Emoticons and Emojis 🤖 make texting easier than words.

7.5.6 Makes texts attractive 🥰

Attracts pictures means the image has the power to make anything more attractive and beautiful. To understand that really image makes text attractive and

force people for interaction. Respondents were asked questions, which is presented in the following table & figure:

Table 7.39: Emoticons / Emojis 🥰 makes texts attractive

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	37	9.3	9.3	9.3
Neither agree or Disagree	89	22.3	22.3	31.5
Agree	274	68.5	68.5	100.0
Total	400	100.0	100.0	

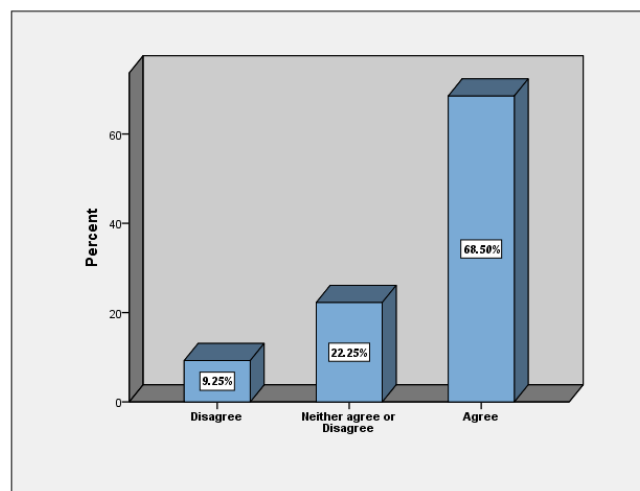


Figure 7.39: Percentage of Emoticons / Emojis 🥰 makes texts attractive

It is evident from table & figure that a large majority of the respondents (68.5 percent) have said that Emoticons and Emojis make texts attractive out of four hundred respondents. Whereas 2 percent of the respondents have confusion about it, and 9.3 percent of the respondents have totally denied this statement.

The data revealed on the basis of majorities that Emoticons and Emojis 🥰 make text attractive and sometimes images force to chatting or interaction.

7.5.7 Makes the text easy to understand 🤔

Many studies discussed that emoticons and emojis are part of the language. Some studies called it a universal language, and some called it “techlingo”. To know whether, during communication with emoticons and emojis, it is easy to interpret by individuals. It is easily understood by the sender and receiver or not. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.40: Emoticons / Emojis 🥲 makes texts easier to understand

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	57	14.3	14.3	14.3
Neither agree or Disagree	99	24.8	24.8	39.0
Agree	244	61.0	61.0	100.0
Total	400	100.0	100.0	

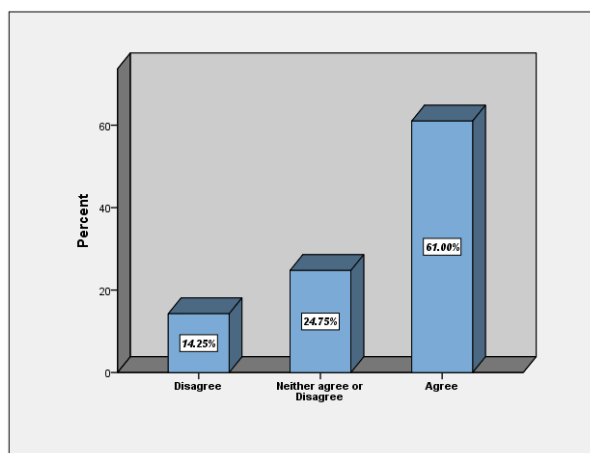


Figure 7.40: Percentage of Emoticons / Emojis 🥲 makes texts easier to understand

The above table & figure shows that the use of emoticons and emojis in communication easy to understand or not. Based on the collected data, this found more than half of the respondents (61 percent) have used emoticons and emojis because it is easily understandable, even emoticons and emojis convey real feelings and emotion, for example – hahahaha.....the word is not able to define the level of a laugh, while 😊 (Smiling Face with Smiling Eyes) 😄 (Grinning Face with Smiling Eyes) 😅 (Grinning Face with Sweat) 🤣 (Rolling on the floor laughing) able to define the level of a laugh. The word is feeling sad also not able to show the level of sadness but through 😞 (disappointed face) 😟 (worried) 😭 (crying face) these able to define the level of sadness. Whereas 24.8 percent of the respondents have neutral about it, and very few around fourteen percent of the respondents completely denied this statement.

Based on the above table & figure, data revealed that the use of emoticons and emojis 🥲 makes text easier to understand.

7.5.8 Saves our times 🌸

Some authors said that emoticons and emojis are shortcut patterns of communication. It takes very less time to type than words, so it saves our valuable time. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.41: I use Emoticons / Emojis 🌸 to save time

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	74	18.5	18.5	18.5
Neither agree or Disagree	81	20.3	20.3	38.8
Agree	245	61.3	61.3	100.0
Total	400	100.0	100.0	

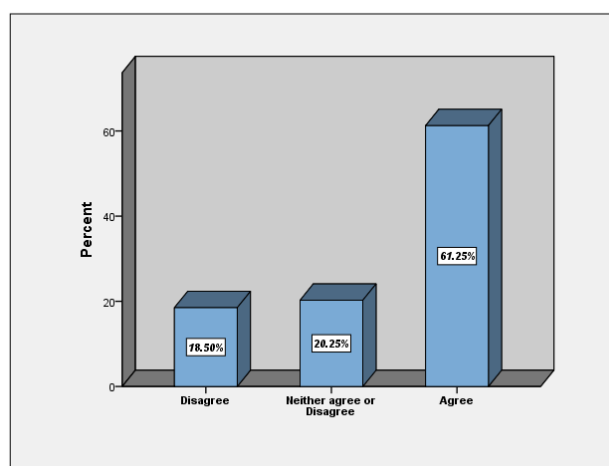


Figure 7.41: Percentage of use Emoticons / Emojis 🌸 to save time

It is quite clear that out of the total respondents investigated for this study, an overwhelming majority (61.3 percent) of them used and said emoticons and emojis save time during communication because we do not need to type full word. One emojis able to express the proper meaning of words; for example, to say congratulations, people just need to type *emoji of Bouquet* 🌸 . To say hello, hi, and hey people just need to type '*emoji of waving hand*' 🙌 . To express, '*I am angry with u,*' '*feeling sad*' people just need to type emoji of '*Pensive Face*' 😞 . To say '*make me call*' people just need to type '*emojis of calling me a hand*' 📞 ,etc. Whereas 20.3

percent of the respondents have neutral about it, and around 18.5 percent of the respondents completely denied this statement.

The collected data revealed on the basis of majorities that emoticons and emojis 🌺 take less time to type than a word, so it saves time during communication.

7.5.9 Makes for fun only

Emoticons and emojis are used for communication or just to make fun in communication. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.42: I use Emoticons/ Emojis ❤️ to make fun

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	163	40.8	40.8	40.8
Neither agree or Disagree	101	25.3	25.3	66.0
Agree	136	34.0	34.0	100.0
Total	400	100.0	100.0	

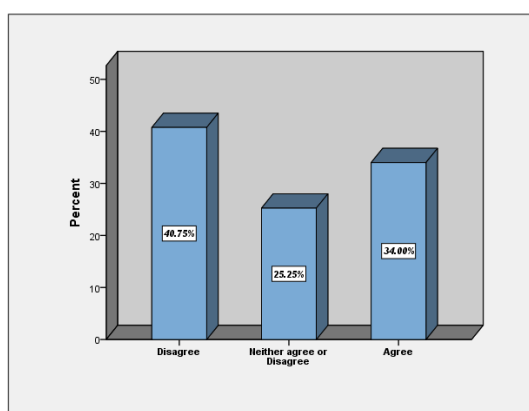


Figure 7.42: Percentage of use Emoticons/ Emojis ❤️ to make fun

Table & figure shows that People use Emoticons and emojis 🍰 for interaction, not to make fun only. The overwhelming number of the respondents (40.8 percent) have denied this statement and said they used emoticons and emojis for communication purposes, not for fun. Slightly less 34 percent of the respondents replied completely agree that they used emoticons and emojis just to make fun only, not for communication purposes, while 25.3 percent of the respondents have said that sometimes they used it for communication and sometimes for fun.

However, data revealed on the basis of the majority that people using emoticons and emojis ❤️ for communication purposes.

7.5.10 Can express feelings and emotions 🙌

In Non-verbal communication, people can communicate through gestures, posture, signs, symbols etc., the same as technology also provides digital non-verbal cues. Emoticons and emojis (Digital Non-verbal) can also express our feeling and emotions as non-verbal communication or not; it is able to communicate our real feelings or not. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.43: I use Emoticons/ Emojis 🙌 to express my feelings and emotions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	36	9.0	9.0	9.0
	Neither agree or Disagree	59	14.8	14.8	23.8
	Agree	305	76.3	76.3	100.0
	Total	400	100.0	100.0	

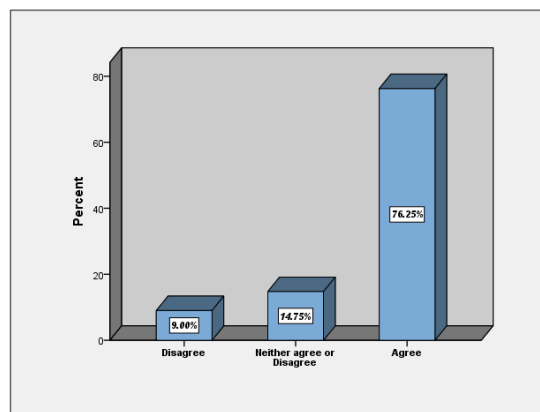


Figure 7.43: Percentage of Emoticons/ Emojis 🙌 expresses feelings and emotions

Descriptive statistics of the above table & figure shows that can emoticons and emojis express feelings and emotions similar to real feelings and emotions. This found that more than two-thirds of the respondents (76.3 percent) have said that emoticons and emojis are able to express feelings and emotions during communication. 9 % of the respondents have said that emoticons and emojis not able to express sentiments of individuals similar to real or face to face non-verbal

communication, while 14.8 percent of the respondents have natural about this statement.

The collected data revealed on the basis of majorities that emoticons and emojis 🙌 are able to express sentiments behind the word or sentiments of individuals which they want to express.

7.5.11 Enhance interest of receiver and sender 🐶

Some studies discussed that emoticons and emojis make the text attractive, easy to understand, easy to write etc., which enhances the interests of receivers as well as senders also for communication. It is a truth that a creative image attracts everyone. Emoticons and emojis can really enhance the interest of the receiver and sender during chatting and texting or not. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.44: Emoticons/ Emojis 🐶 enhance the interest of receiver and sender in text communication

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	55	13.8	13.8	13.8
Neither agree or Disagree	101	25.3	25.3	39.0
Agree	244	61.0	61.0	100.0
Total	400	100.0	100.0	

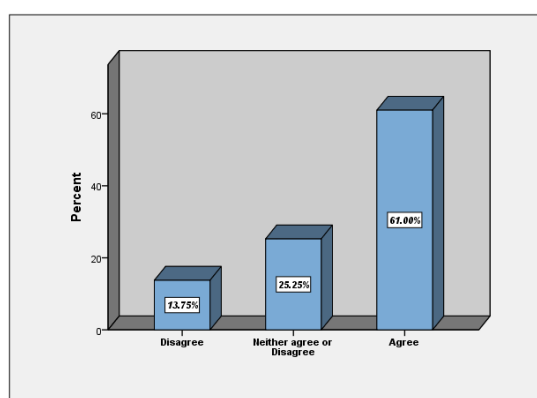


Figure 7.44: Percentage of Emoticons/ Emojis 🐶 enhance the interest of receiver and sender

The above table & figure show the descriptive statistic of Emoticons and Emojis as the reason for enhancing interest. This estimated that across all n=400 respondents, there were n=244 of the respondents (61 percent) has answered agree that

images make texting attractive and interesting, so it enhances interest, while 25.3 percent of respondents have answered neither agree or disagree, means they are not sure about it. Very few, 13.8 percent of the respondents have completed answered disagree that it does not enhance interest during communication.

On the basis of data, the researcher found that the majority of respondents agreed that sentiments icons 🐵 (emoticons and emojis) enhance interest in communication.

7.5.12 Place of words and sentences use Emoticons and Emojis 🥥 .

Some linguistic authors discussed in their study that emoticons and emojis were becoming a universal language. Nowadays, in communication, individuals often use emoticons and emojis in place of words and sentences. To find out this fact, respondents were asked whether they use emoticons and emojis in place of words and sentences. The table & figure below have shown the answer:

Table 7.45: I use Emoticons / Emojis 🥥 in place of word and sentences.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	99	24.8	24.8	24.8
Neither agree or Disagree	130	32.5	32.5	57.3
Agree	171	42.8	42.8	100.0
Total	400	100.0	100.0	

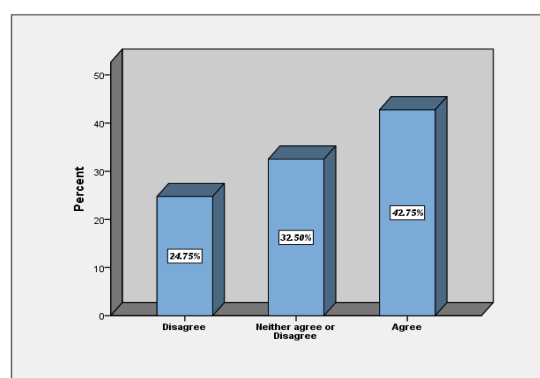


Figure 7.45: Percentage of use of Emoticons / Emojis 🥥 place of word and sentences.

It is clear from the above table & figure that the overwhelming majority of the respondents (84 percent) agreed about the statement, that they often use emoticons and emojis during communication in place of words and sentences because it is very

easy in type, understandable and can express our feelings. 32.5 percent of the respondents have neutral about this statement. While 24.8 percent of the respondents have completely denied this statement and said that they did not use emoticons and emojis in place of words and sentences, but they mentioned emojis with every word and sentence.

Therefore, it can be concluded that the majority of respondents have often used emoticons and emojis during communication in place of words and sentences.

7.5.13 Shortcut patterns of communication 🥥

Some authors argue in their studies that often, people use emotion symbols (emojis, stickers) during texting, chatting, etc., and even discussed that words and sentences are replaced by emoticons and emojis. Emoticons and emojis could be a shortcut pattern of text communication or not, and it is a shortcut pattern of communication or not. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.46: Emoticons / Emojis 🥥 are the shortcut pattern of text communication.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	39	9.8	9.8	9.8
	Neither agree or Disagree	90	22.5	22.5	32.3
	Agree	271	67.8	67.8	100.0
	Total	400	100.0	100.0	

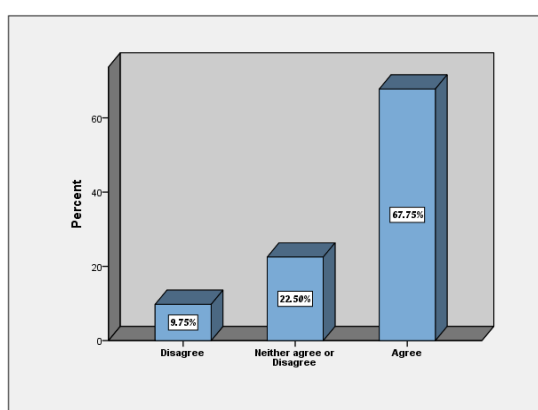


Figure 7.46: Percentage of Emoticons / Emojis 🥥 is the shortcut pattern

It is observed from table & figure that an overwhelming majority of the respondents (67.8 percent) said that they have frequently used emoticons and emojis during texting, messaging, etc., even during mailing also because it is shortcut

patterns and way of text communication. Whereas 22.5 percent of the respondents' neutral on this statement. Very few around 10 percent of the respondents completely denied that it is a shortcut pattern of text communication.

Therefore, the data revealed on the basis of the majority of the respondents that emoticons and emojis 🥥 are shortcut patterns of text communication.

7.5.14 Difficult to type and understand than words 🔥

The study seeks to find out why some individuals avoid using emoticons and emojis. Is it more difficult to write and understand than words or sentences? To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.47: I do not use Emoticons/Emojis 🔥 because it is hard to use than word.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	246	61.5	61.5	61.5
	Neither agree or Disagree	84	21.0	21.0	82.5
	Agree	70	17.5	17.5	100.0
	Total	400	100.0	100.0	

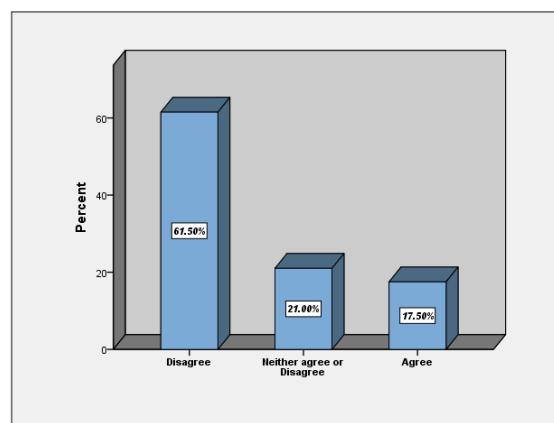


Figure 7.47: Percentage of Emoticons/Emojis 🔥 hard to use than word.

It is evident from Table & figures that a large majority of respondents (61.5 percent) have shown disagreement that emoticons and emojis not difficult to type and understand. They said that during formal communication do not use emoticons and emojis; in informal communication, they frequently use emoticons and emojis. Whereas 17.5 percent of respondents agree that emoticons and emojis are difficult to type and understand, and 21 percent are neutral on this.

The collected data revealed that emoticons and emojis 🍕 easily typed and understandable during communication than words.

7.5.15 Messages send with Emoticons and Emojis 🍕.

To show the sentiments, real expression, and emotion, people, often use emoticons and emojis in place of words during texting. Emoticons and emojis frequently use in place of non-verbal face-to-face communication and fulfil the requirement of face-to-face communication according to some studies. Some studies also say that the use of emoticons and emojis makes texting easy to understand, attractive, easy to type etc. In what extent, respondents send emoticons and emojis during text messaging. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.48: I send _____ messages with Emoticons/ Emojis 🍕

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0 - 25%	165	41.3	41.3	41.3
26 - 50%	100	25.0	25.0	66.3
51 - 75%	72	18.0	18.0	84.3
76 - 100%	44	11.0	11.0	95.3
No Messages	19	4.8	4.8	100.0
Total	400	100.0	100.0	

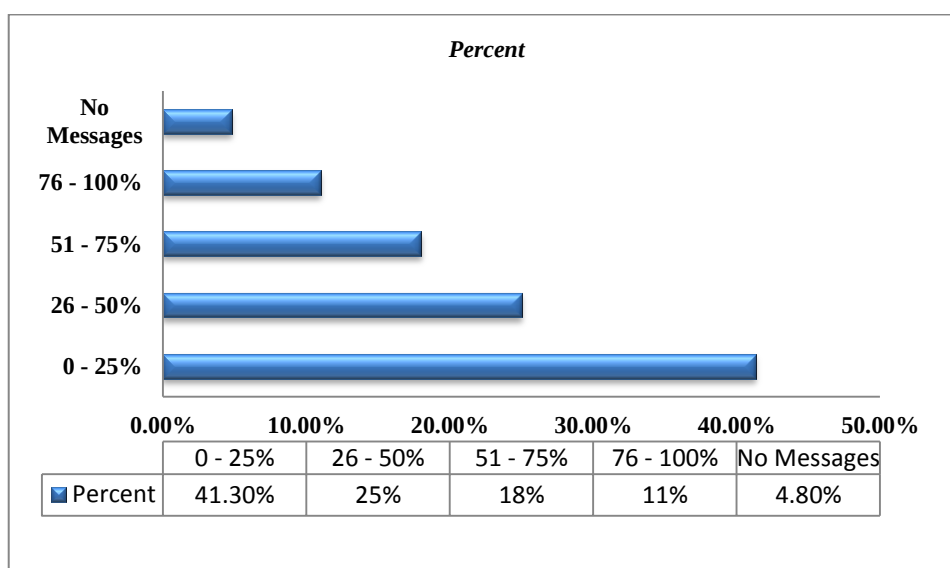


Figure 7.48: Percentage of message sent with Emoticons/Emojis 🍕

Table & figure indicated that how many emoticons and emojis people used during messaging and online chatting. Amongst the n=400 respondents, 41.3 percent

of the respondents have answered that they regularly mentioned 0-25 percent of emoticons and emojis during texting. 25 percent of the respondents have answered that they 26-50 percent emoticons and emojis mentioned during messaging and chatting, and 18 percent of the respondents have answered that they mentioned 51- 75 percent emoticons and emojis. Whereas 11percent of the respondents have answered that, they mentioned 76- 100 percent emoticons and emojis during messaging and chatting, which means they completely communicate with emoticons and emojis, whereas very less 4.8 percent of the respondents have answered that they not used emoticons and emojis during messaging and chatting.

The data revealed that not much but rarely people used emoticons and emojis 🍿 during messaging and chatting. This means the quantity is less, but they send every message with emoticons and emojis.

7.5.16 Message received with emoticons and emojis 🍷 🎉

To what extent, respondents receive messages with emoticons and emojis during text messaging. For find this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.49: I received _____ messages with Emoticons/ Emojis 🍷 🎉

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0 - 25%	91	22.8	22.8	22.8
26 - 50%	144	36.0	36.0	58.8
51 - 75%	113	28.3	28.3	87.0
76 - 100%	44	11.0	11.0	98.0
No Messages	8	2.0	2.0	100.0
Total	400	100.0	100.0	

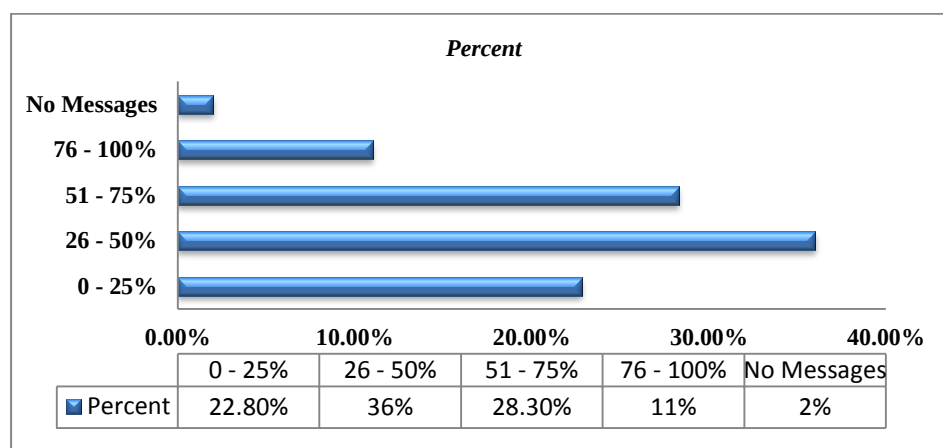


Figure 7.49: Percentage of message sent with Emoticons/Emojis 🍷 🎉

The data presented above clearly shows that how many emoticons and emojis received during messaging and chatting. This found that 22.8 percent of the respondents have received 0-25 percent of the message with emoticons and emojis. 36 percent of the respondents have received 26-50 percent of the message with emoticons and emojis, while 28.3 percent of the respondents have said that they received 51-75 percent messages. Eleven percent of the respondents have said that they received the full message with emoticons and emojis means they only communicate with emoticons and emojis, whereas very few around two percent of the respondents said that they never received messages with emoticons and emojis.

Data collected based on prominence showed that 50 percent of emoticons and emojis were received during messaging and chatting. This means that people used emoticons and emojis 🍷🎉 in every messaging and chatting.

7.5.17 Enough for Communication 📖

Nowadays, people are using emoticons and emojis in considerable quantities to express their sensations. The available emoticons and emojis are sufficient for interaction or not. For find this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.50: Do you think, provided emojis 📖, and other symbols are enough for communication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	83	20.8	20.8	20.8
	No	208	52.0	52.0	72.8
	don't know	109	27.3	27.3	100.0
	Total	400	100.0	100.0	

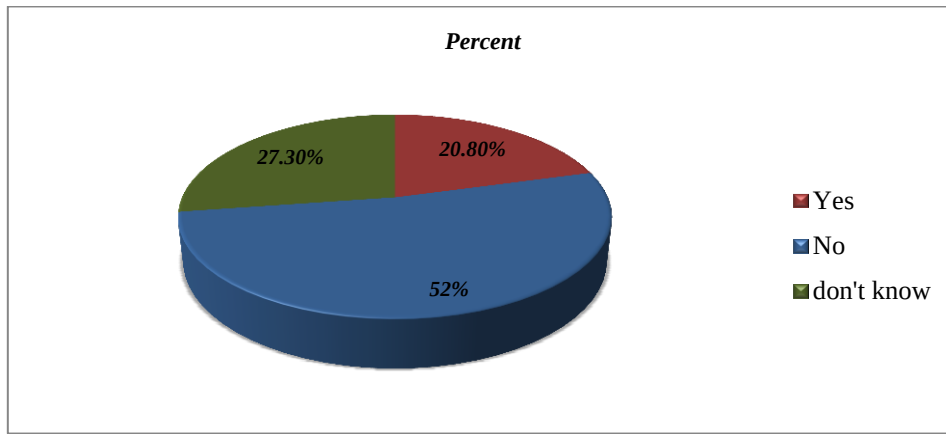


Figure 7.50: Percentage of provided emojis 🧡, and other symbols are enough for communication

It is evident from the table & figure that more than half of the total respondents (52 percent) have replied that provided emoticons and emojis are not enough for communication. During the interview, respondents said that different device has different emojis and not in equal quantity. According to him, for suitable communication, the available emojis are not sufficient. Whereas 20.8 percent of the respondents replied, agree that provided emoticons and emojis are enough for communication. 27.3 percent of the respondents have no idea about it.

The collected data revealed that on the basis of majorities, there is still a lot of emojis 🧡 missing for proper communication.

7.5.18 Taking place of words and Sentences 🍷 🍰

Based on previous questions, the majority of respondents replied that they used emoticons and emojis on the place of words and sentences. To know that if we used emoticons and emojis for communication, it means it is replacing the words and sentences. To know this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.51: Emoticons/emojis (🍷 🍰) are taking place of words and sentences

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	76	19.0	19.0	19.0
	Rarely	202	50.5	50.5	69.5
	Always	122	30.5	30.5	100.0
	Total	400	100.0	100.0	

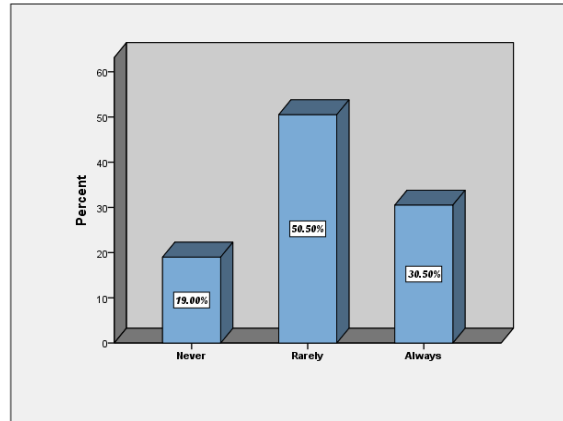


Figure 7.51: Percentage of Emoticons/emojis (🍰 🎂) are taking the place of words and sentences

It is obvious from the table & figure that half of the majority (50.5 percent) of the respondents have replied 'rarely' that emojis can sometimes use place of words and sentences, not always. They said that whenever emojis fulfill the requirement of words, they include it, whereas 30.5 percent of the respondents replied, they always replace words and sentences with emojis. Nineteen percent of the respondents have replied that Never emoticons and emojis have can take the place of words and sentences. It is only used to make text attractive and place some common words like hehe, feeling sad, cry, etc.

It can, therefore, be concluded that not always but rarely emoticons and emojis (🍰 🎂) replaced the words and sentences.

7.5.19 Communication only with Emoticons and Emojis 🚶 🚗

Table 7.52: Have you ever communicated only with emoticons/emojis 🏃

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	219	54.8	54.8	54.8
	No	181	45.3	45.3	100.0
	Total	400	100.0	100.0	

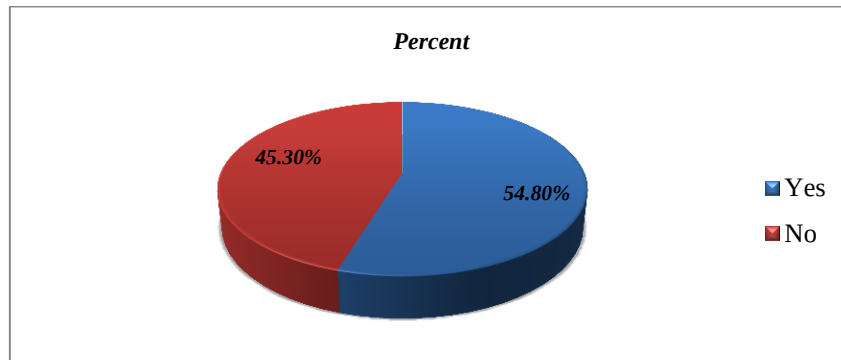


Figure 7.52: Percentage of ever communicated only with emoticons/emojis 🚶 🚕

When the researcher asked a general question that have you ever communicate with emoticons and emojis, the majority of the respondents said yes. The table & figure above show that a large majority of respondents (54.8 percent) had said yes, they mostly time communicate only with emoticons and emojis, whereas 45.3 percent of the respondents have said No that they never communicate only with emoticons and emojis.

Therefore, it can be concluded that the majorities of respondents sometimes communicate only with emoticons and emojis 🚶 🚕.

7.5.20 Intensity of emotions 🤔 🐱

To know that when someone communicates only through emoticons and emojis and they want to show the level of happiness, level of angry, level of excitement etc. means intensity behind happiness, anger, excitement etc. what they do. For know this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.53 : I show intensity of emotions (level of happiness, angry, excitement etc) through sending many emoticons/emojis 🤔 🐱 of same emotion at a time

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	320	80.0	80.0	80.0
	No	80	20.0	20.0	100.0
	Total	400	100.0	100.0	

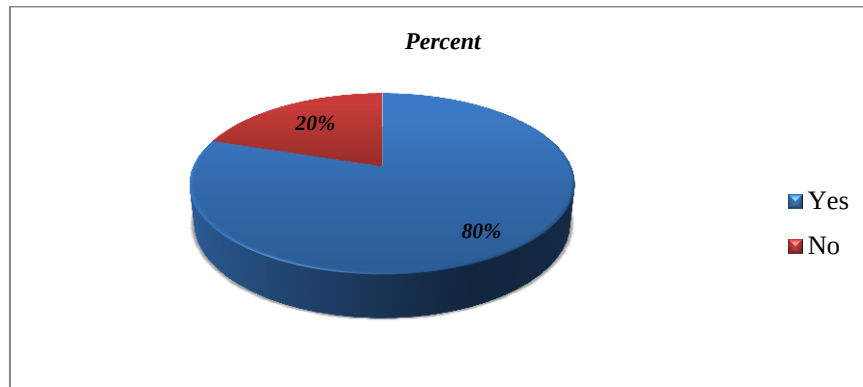


Figure 7.53: Percentage of to show intensity of emotions to send same emotion at a time

It is evident from the table & figure above that the overwhelming majority of the respondents (84 percent) have replied yes. They said that to show the intensity behind any emotions, we repeat the same emojis many times, but the repetition of emojis totally depends on the level of feeling and intensity behind the messages (which they want to communicate). Whereas, 20 percent of the respondents have replied No, that quantity of the same emojis are not able to express the feeling behind of messages.

On the basis of majorities, the data revealed that to express the intensity of emotions, people used the same emojis 🤗🐱 many times.

7.5.21 Meaning and Interpretation of Emojis

7.5.21.a 🤗 (Smiling face with smiling eyes)

Technology-Mediated Digital emojis are frequently used by people for communication purposes. However, some studies found that the meaning of the same emoji is different for everyone and some studies said that no, same emojis have the same meaning for everyone. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.54.a: 🤗 (Emojis of smiling face with smiling eyes)

Emotion	Frequency	Percent	Valid Percent	Cumulative Percent
Valid To express Genuine Happiness	339	84.8	84.8	84.8
To express Warm	20	5.0	5.0	89.8
To express Positive feeling	41	10.3	10.3	100.0
Total	400	100.0	100.0	

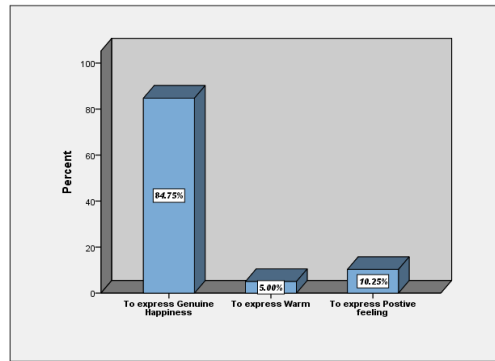


Figure 7.54.a: Percentage of smiling face with smiling eyes 😊

The above table indicated the meaning of smiling face with smiling eyes emojis 😊 which same and common for everyone. The overwhelming majority of the respondents (84.8 percent) have said they used (smiling face with smiling eyes) 😊 emojis for “to express genuine feeling of happiness”. In the same way, 10.3 percent of respondents have said they used 😊 smiling face with smiling eyes emojis for “to express a positive feeling”, whereas, very few only five percent of respondents have replied that they used this emojis for “to express warm.”

Therefore, the data revealed that the majority of respondents used this emojis 😊 “to express genuine feeling of happiness”, which the same as emojismedia meaning.

7.5.21.b 😍 (Smiling face with heart eyes)

The meaning and interpretation of Emojis of smiling face with heart eyes by individuals is the same and different for everyone. To find this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.54.b : 😍 (Emoji of smiling face with heart eyes)

Emotion	Frequency	Percent	Valid Percent	Cumulative Percent
Valid To convey enthusiastic feelings of love	25	6.3	6.3	6.3
I Like or Love this things or person	346	86.5	86.5	92.8
To convey enthusiastic feeling of adoration	29	7.3	7.3	100.0
Total	400	100.0	100.0	

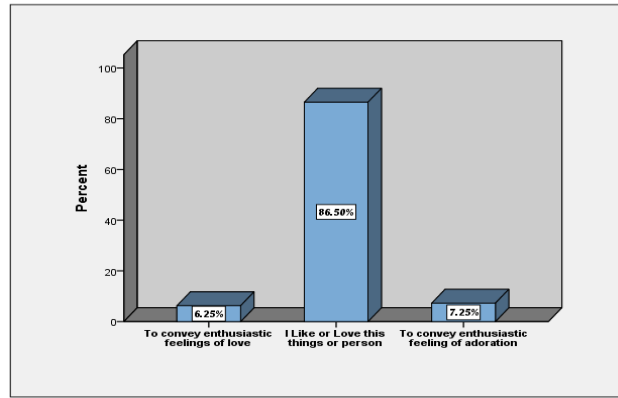


Figure 7.54.b: Percentage of smiling face with heart eyes emoji 😍

The above table & figure shows the meaning and interpretation of smiling face with heart eye emojis 😍 by respondents. Table & figure indicates that out of total (n=400) respondents, an overwhelming majority of the (n=346) respondents, i.e., 86.5 percent have replied that when they like any statement, things, person, etc. and also feel love for a person, things, etc. for this they use a smiling face with heart eyes emojis (😍). 6.3 percent respondents (n=25) have replied that they use (😍) smiling face with heart eyes emoji in conversation to convey the enthusiastic feeling of love, whereas 7.3 percent respondents (n=29) have replied that to convey the enthusiastic feeling of adoration they use 😍 emojis of smiling face with heart emojis (😍) in conversation.

The data revealed that the majority of respondents used smiling face with heart (😍) emojis for “I like or love this things or person”, which is the same as emojipedia also, which means there is only less difference to the interpretation of emojis meaning.

7.5.21.c 🙏 (Emoji of folded hands)

In order to understand the meaning and interpretation of Emojis of folded hands by individuals is the same and different for everyone. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.54.c : Emoji of folded hands 🙏

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid To express Prayer/Namaste	180	45.0	45.0	45.0
To express High-five	75	18.8	18.8	63.8
To express Please and thank you	145	36.3	36.3	100.0
Total	400	100.0	100.0	

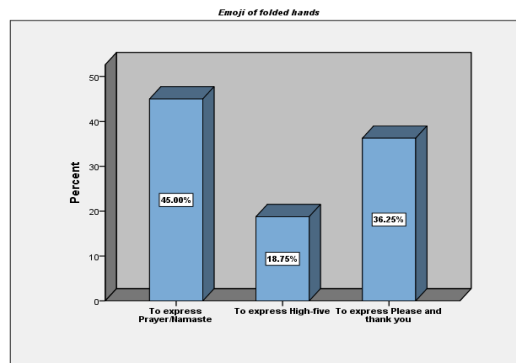


Figure 7.54.c: Percentage of folded hands emojis 🙏

It becomes clear from table & figure that a large majority of respondents (45 percent) have interpreted the meaning of folded hand 🙏 as to express prayer and to express Namaste, whereas slightly less 36.3 percent of the respondents (n=145) have interpreted the meaning of folded hand emojis 🙏 as to express please and to express thank you during the texting. A very few numbers of respondents around nineteen percent said they used folded hand emoji to express High- five.

The above data revealed that majorities of the respondents use folded hand emojis 🙏 for prayer and Namaste purposes, which is the same as emojipedia meanings and interpretation. Some other Asian cultures and in Japanese culture are used to represent, “please,” “thank you,” and “I am sorry”.

The data is also revealed that slightly less to majorities, respondents used folded hand emoji 🙏 “to express Please and thank you,”

7.5.21.d 🙌 Ok Hand

To know the meaning and interpretation of (🙌) Emoji of index finger and thumb touching to make an open circle or Ok Hand by individuals is the same and

different for each one. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.54.d: Emoji of index finger and thumb touching to make an open circle or Ok Hand 🤞

Meaning of Emojis		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	To convey that's correct	10	2.5	2.5	2.5
	To convey I'm okay/Yes	163	40.8	40.8	43.3
	To convey that's Good	227	56.8	56.8	100.0
	Total	400	100.0	100.0	

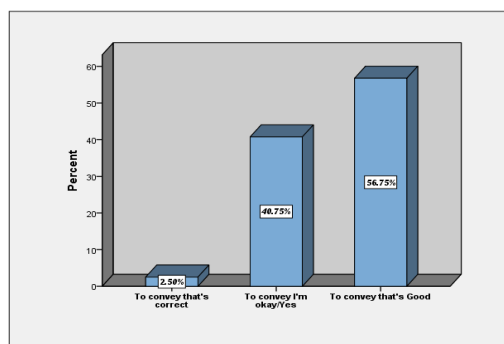


Figure 7.54.d: percentage of index finger and thumb touching to make an open circle or Ok Hand 🤞

As the above table & figure is represented the interpretation of 🤞 (index finger and thumb touching to make an open circle or Ok) by respondents. Out of total (n=400) respondents, 56.8 percent of the respondents (n=227) have said that they used 🤞 (index finger and thumb touching to make an open circle or Ok) emoji “to convey that is good” in conversation. Whereas according to 40.8 percent of the respondents, the meaning and interpretation of 🤞 index finger and thumb touching to make an open circle or Ok Hand is ‘I am ok’ and ‘yes’ or ‘agree’ on any statement. Very few 2.5 percent of the respondents have said that they used 🤞 (index finger and thumb touching to make an open circle or Ok Hand emoji) for ‘to convey that corrects and right.

The data revealed that the majority of respondents use the 🤞 (index finger and thumb touching to make an open circle or Ok Hand emojis) “to convey that’s good” during the conversation, comment, and post.

7.5.21.e ❤️ (Red heart Emoji)

In order to know the meaning and interpretation of (❤️) Red heart, Emojis used by the individuals is the same way and different way. To understand this, the respondents were asked the question, which is presented in the following table & figure

Table 7.54.e: Emoji of Red heart ❤️

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid To convey affection and care	28	7.0	7.0	7.0
For Expression of Love	341	85.3	85.3	92.3
To express cordial love from pure heart	31	7.8	7.8	100.0
Total	400	100.0	100.0	

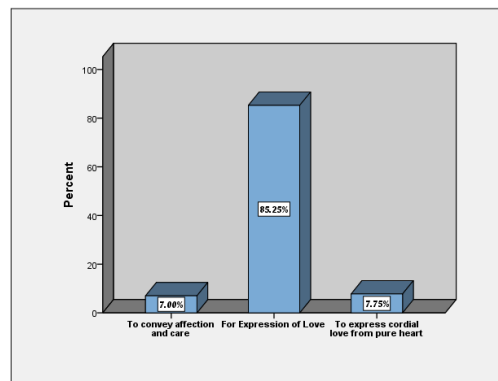


Figure 7.54.e: Percentage of red heart emojis ❤️

The above table & figure shows the in which sense and purpose the (❤️) red heart emoji have used. Means, what is the meaning and interpretation of red heart emojis for everyone. This found that the overwhelming majority (85.3 percent) of the respondents have replied that they used ❤️ (red heart emoji) “*to express the feeling of love*”. According to them, the meaning and interpretation of (red heart emoji) ❤️ is Expression of love. Eight percent of the respondents have replied that they used (red heart emoji) ❤️ “*to express cordial love from pure heart*”, whereas 7 percent of the respondent has replied that they used (red heart emoji) ❤️ “*to convey affection and care*”.

The data revealed that majorities of respondents interpret the meaning of ❤️ (red heart emojis) as “*Expression of Love*” the same as emojiopedia interpretation. This also shows the meaning and interpretation of ❤️ (red heart emoji).

7.5.21.f 🌸 (Bouquet emoji)

To understand the meaning and interpretation of Emojis of (🌸) colorful flowers arranged in a bouquet by individuals is the same and different for everyone. To know this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.54.f: 🌸 Emoji of colorful flowers arranged in a Bouquet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	To express Honor	35	8.8	8.8	8.8
	To convey Congratulations/appreciation	339	84.8	84.8	93.5
	For convey proposal of Love/happiness	26	6.5	6.5	100.0
	Total	400	100.0	100.0	

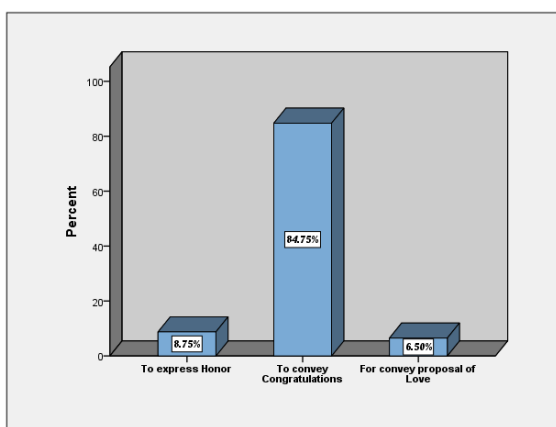


Figure 7.54.f: Percentage of colorful flowers arranged in a Bouquet 🌸

From the table & figure have given above, it is clear that a majority of the respondents (84.8 percent) have used and interpreted the meaning of colorful flowers arranged in a Bouquet (🌸) as like “to convey congratulations”. Very less 8.8 percent of the respondents have said that they use (🌸) emojis of colorful flowers arranged in a Bouquet “to convey honor”; in the same way, 6.5 percent of the respondent has said that they use to it “to convey proposal of love”.

Therefore, it can be concluded that the majority of respondents used and interpret the meaning of colorful flowers arranged emojis 🌸 as “To convey Congratulations”.

Many authors stated in their studies that emoticons and emojis are replacing words and sentences. Comfortable in typing, engaging, easy to understand, expressing emotions and feelings with real expressions, etc. are often the reason for using it. Even a lot of online chats and messages prove that people used emojis more than words and sentences. To find out how can emoticons and emojis are replacing words and sentences. The respondents were asked questions. Through the following words and sentences, the researcher has tried to find out how emojis interpret the meaning of words and sentences. An attempt has been made to find out how an emoji can explain complete sentences.

and understandable. However, the use of emojis for the sentence is not the same for everyone. According to collected data, 12 percent of the respondents (n=48) have used “😓 Emoji of tired face” to interpret the sentence “I am sad.” Whereas 2.5 percent of the respondents (n=10) have used “😡 Emoji of angry face” for the same sentence, and very few 1.5 percent of the respondents (n=6) have replied they used “😏 Emoji of smirking face” to interpret the same sentences.

It can be concluded that the overwhelming majorities of respondents use “😞 Emoji of disappointed face” to convey I am sad and feeling sad.

**6.5.22.b Sentence 2: I am not well.
Suffering from fever**

- Options:**
- 1) 😷
 - 2) 🤒
 - 3) 🤕
 - 4) 🤧

Table 7.55.b: Which following emojis replace the sentence "I am not well" "I am suffering from fever"

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 😷 Emoji of face with thermometer	230	57.5	57.5	57.5
🤒 Emoji of face with medical mask	52	13.0	13.0	70.5
🤕 Emoji of face with Head bandage	48	12.0	12.0	82.5
🤧 Emoji of sneezing face	70	17.5	17.5	100.0
Total	400	100.0	100.0	

The above table shows that which emojis used on the place of sentences “I am not well” and “I am suffering from fever” and also try to understand that it really interprets the meaning of the sentence or not, which senders want to say.

This found that an overwhelming majority of the respondents (57.5 percent) have used 😷 (Emoji of face with thermometer) for the sentence "I am not well, and

I am suffering from fever." Thirteen percent of the respondents (n=52) have replied they used 🤒 (Emojis of face with medical mask) for this same sentence. Whereas 12 percent of the respondents (n=48) has replied that they used 🤕 (Emoji of face with Head bandage) for that, and 17.5 percent of the respondents (n=17) have used 🤧 (Emoji of sneezing face), for the sentence "I am not well and I am suffering from fever".

On the basis of majorities, data revealed that 🤒 (Emoji of the face with a thermometer) is suitable for the sentences "I am not well and I am suffering from fever," which also generally used to indicate that.

**7.5.22.c Sentence3: My heart is broken.
My heart will break.**

- Options:**
- 1) 💕
 - 2) ❤️
 - 3) 💔
 - 4) 🩹❤️

Table 7.55.c: Which following emojis replace the sentence "My heart is broken"

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 💕 Emoji of revolving heart	5	1.3	1.3	1.3
❤️ Emoji of red heart	7	1.8	1.8	3.0
💔 Emoji of broken heart	382	95.5	95.5	98.5
🩹❤️ Emoji of heart with ribbon	6	1.5	1.5	100.0
Total	400	100.0	100.0	

Table shows that which emojis used on the place of sentences “ My heart is broken” and “My heart will break” and also try to understand that it really interprets the meaning of the sentence or not, which senders want to say.

For the sentences, “My heart is broken” and “My heart will break”, out of total (n=400) respondents, the overwhelming majority of respondents (95.5 percent) have

used  (emojis of a broken heart) for conveying this sentence. Whereas 1.3 percent of the respondents (n=5) have used  (emoji of the revolving heart) for communicating its sentences and 1.8 percent of the respondents (n=7) have used  (Emoji of the red heart) for conveying the same sentences. Around two percent of the respondents replied that they use  (Emoji of heart with ribbon) to convey the same.

The data revealed that majorities of the respondents had used  (emojis of a broken heart) to replace the sentences "my heart is broken and my heart will break".

**7.5.22.d Sentences 4: It's very tasty.
Yummy, Delicious, etc**

- Options:**
- 1) 
 - 2) 
 - 3) 
 - 4) 

Table 7.55.d: Which following emojis replace the sentence "It's very tasty, Yummy, & delicious.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid  Emoji of winking face with tongue	17	4.3	4.3	4.3
 Emoji of face savoring food	349	87.3	87.3	91.5
 Emoji of squinting face with tongue	13	3.3	3.3	94.8
 Emoji of face with tongue	21	5.3	5.3	100.0
Total	400	100.0	100.0	

Above table shows that which emojis use in the place of sentences “It’s very tasty”, “Yummy”, “Delicious” etc. and also tried to understand that it interprets the meaning of the sentence or not, which senders want to say.

This found that an overwhelming majority of the respondents (87.3 percent) have used 😊 (Emoji of face savoring food) for a place of the sentence "It's very tasty, Yummy, & delicious." 4.3 percent of the respondents (n=17) have replied they used 😜 (Emoji of winking face with tongue) for the place of sentences "it's very tasty, Yummy, & delicious, etc.". Whereas 3.3 percent of the respondents (n=13) has replied that they used 😏 (Emoji of squinting face with tongue) for that, and 5.3 percent of the respondents (n=21) have used 😛 (Emoji of the face with tongue) for the same.

Therefore, it can, be concluded that the majority of respondents used 😊 (Emoji of face savoring food) for the place of "It's very tasty," "Yummy", "Delicious" etc. sentences.

**7.5.22.e Sentences 5: I like it.
Ok, Agree.**

- Options:**
- 1) 🤝
 - 2) 👉
 - 3) 👎
 - 4) 👍

Table 7.55.e: Which following emojis replace the sentence "I like it, ok or agree"

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 🤝 Emoji of Handshake	8	2.0	2.0	2.0
👉 Emoji of Backhand Index pointing left	6	1.5	1.5	3.5
👎 Emoji of thumbs down	9	2.3	2.3	5.8
👍 Emoji of thumbs up	377	94.3	94.3	100.0
Total	400	100.0	100.0	

Table shows that which emojis have used on the place of sentences "I like it, Ok, Agree" and also tried to understand that it really interprets the meaning of a sentence or not, which senders want to say.

For the sentences, "I like it," "ok," and "agree" the overwhelming majority of respondents (94.3 percent) have used 👍 (Emoji of thumbs up) to communicate these sentences. Whereas two percent of the respondents (n=5) have used 🤝 (Emoji of a handshake) for communicating "I like it, ok, and agree" and 1.5 percent of the respondents (n=6) have used 👉 (Emoji of Backhand Index pointing left) for conveying the same sentences. Around 2.3 percent of the respondents replied that they use 👎 (Emoji of thumbs down) to convey the sentence and word the same.

The collected data revealed that the majority of the respondents have used 👍 (Emoji of thumbs up) to convey the sentences and words "I like it, ok, and agree", which generally use for it.

**7.5.22.f Sentences 6: I am thinking.
I am trying to understand**

- Options:**
- 1) 😲
 - 2) 🤔
 - 3) 😐
 - 4) 🤨

Table 7.55.f : Which following emojis replace the sentence "I am thinking"

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 😲 Emoji of face with small, open eyes and a large, round mouth, slack with surprise or shock	3	.8	.8	.8
🤔 Emoji of face with a hand covering its mouth	9	2.3	2.3	3.0
😐 Emoji of face with flat, closed eyes and mouth	7	1.8	1.8	4.8
🤨 Emoji of face with furrowed eyenrows looking upwards with thumb and index finger resting on its chin	381	95.3	95.3	100.0
Total	400	100.0	100.0	

Above table shows that which emojis used in the place of sentences “I am thinking and I am trying to understand,” etc. which also tried to understand that it really interprets the meaning of the sentence or not, which senders want to say.

This found that an overwhelming majority of the respondents (95.3 percent) have been used 🤔 (Emoji of a face with furrowed eyebrows looking upwards with thumb and index finger resting on its chin) for a place of the sentence "I am thinking and I am trying to understand". Whereas very few respondents, i.e., point eight percent (.8) have used 😲 (Emoji of face with small, open eyes and a large, round mouth, slack with surprise or shock) for communicating “I am thinking and I am trying to understand.” Nearby two and a half percent (2.3) have used 🤫 (Emoji of face with a hand covering its mouth) for conveying the same sentences, and 2 percent have used 😐 (Emoji of face with flat, closed eyes and mouth) for the sentence “I am thinking and I am trying to understand”.

Therefore, it can be concluded that the majority of respondents used 🤔 (Emoji of a face with furrowed eyebrows looking upwards with thumb and index finger resting on its chin) for the place of “I am thinking and I am trying to understand”.

**7.5.22.g Sentences 7: Feeling sleepy. Bye
I just wake up, Hello**

- Options:**
- 1) 😲 🖐️
 - 2) 😴 🖐️
 - 3) 😐
 - 4) 😲 🖐️

Table 7.55.g: Which following emojis replace the sentence "Feeling sleepy, bye"

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid  Emojis of face with open mouth, and raised hand, with fingers separated between the ring finger and the middle finger	9	2.3	2.3	2.3
 Emojis of face with eyes closed and mouth letting out three, cartoon - styled Zzz's over head, and hand waving	366	91.5	91.5	93.8
 Emoji of simple, open eyes and a flat, closed mouth	1	.3	.3	94.0
 Emojis of face with open eyes, mouth and raised eyebrows, and hand with fingers splayed	24	6.0	6.0	100.0
Total	400	100.0	100.0	

The table shows which emojis have used in the place of sentences “Feeling sleepy, bye and I just wake up, Hello” and also tried to understand that it really interprets the meaning of a sentence or not, which senders want to say.

For the sentences, "Feeling sleepy, bye and I just wake up" the overwhelming

majority of respondents (91.5 percent) have used  (Emojis of a face with eyes closed and mouth letting out three, cartoon - styled Zzz's overhead, and hand waving) to communicate these sentences. Whereas 2.3 percent of the respondents

have used , (Emojis of a face with open mouth, and raised hand, with fingers separated between the ring finger and the middle finger) for communicating, "Feeling sleepy, bye and I just wake up". Point three (.3) percent of the respondents,

have used  (Emoji of simple, open eyes and a flat, closed mouth) for conveying the same sentences. Around 6 percent of the respondents replied that they use (Emojis of a face with open eyes, mouth and raised eyebrows, and hand with fingers splayed) to convey the sentence and word the same.

The collected data revealed that the majority of the respondents have used 🤪👋 (Emojis of face with eyes closed and mouth letting out three, cartoon - styled Zzz's overhead, and hand waving) to convey the sentences “Feeling sleepy, bye and I just wake up, Hello,” which also generally use for it.

7.6. Uses and importance of Textisms (abbreviations or shortcut pattern) in Interpersonal Communication

7.6.1 Platform use for Messaging and chatting

Texting, Messaging, Chatting etc. are frequently used for interpersonal communication nowadays. It is a very easy way to communicate with each other. To know that ICTs provided, which platform people frequently use for text-based communication. Respondents were asked a question, which is presented in the following table & figure:

Table 7.56: I Frequently use _____ for Messaging, chatting etc

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SMS	34	8.5	8.5	8.5
Email(outlook,hotmail etc)	12	3.0	3.0	11.5
Whatsapp	338	84.5	84.5	96.0
Snapchat	1	.3	.3	96.3
Messenger	9	2.3	2.3	98.5
Google+	1	.3	.3	98.8
Facebook	2	.5	.5	99.3
Instagram	1	.3	.3	99.5
Linked In	1	.3	.3	99.8
Others	1	.3	.3	100.0
Total	400	100.0	100.0	

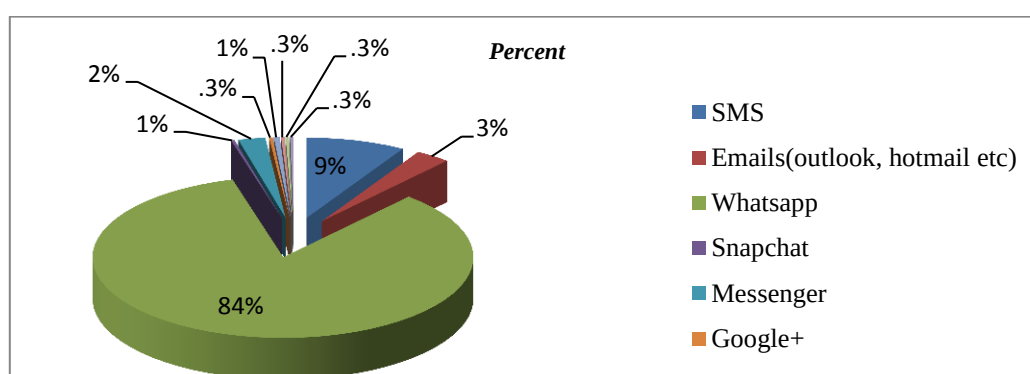


Figure 7.55: Percentage of frequently used platform for messaging and chatting

The table & figure above clearly shows the frequently used platform for texting, messaging, and chatting. From the table & figure, the researcher found that an overwhelming majority (84 percent) of the respondents have used Whatsapp for text-based communication (messaging, chatting, etc.). Whereas 8.5 percent of the respondents have used SMS (messaging) for texting, 3 percent of the respondents have used emails (Outlook, Hotmail, Yahoo, etc.), and 2.3 percent of the respondents have used messenger for the same. Very few respondents have used Facebook, Snapchat, google+, Instagram and Linked in for the messaging and chatting purpose. This clearly shows that the majority of respondents have used Whatsapp for texting, messaging, and chatting. Therefore, Whatsapp is the frequently used platform for text-based interpersonal communication.

7.6.2 Keeps touch with people

Regular messaging and chatting always keep in touch with people. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.57: I chat much because I want to be in touch with people.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	123	30.8	30.8	30.8
Neither agree or Disagree	131	32.8	32.8	63.5
Agree	146	36.5	36.5	100.0
Total	400	100.0	100.0	

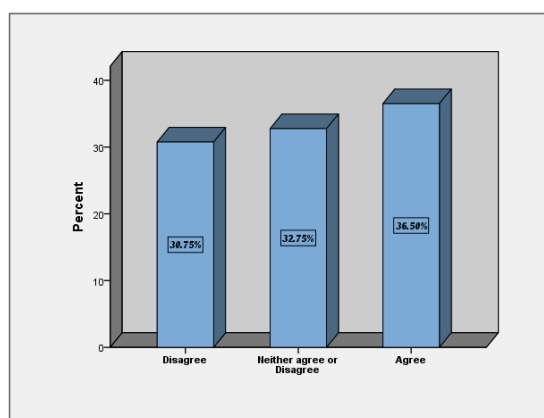


Figure 7.56: Percentage of much chatting for to be in touch with people

The table & figure presented above clearly shows that the overwhelming majority of (n=146) respondents, i.e., 36.5 percent, stated that they do much and regular texting to keep themselves in contact with people. They believe that sending and receiving a message every day makes people feel close to you. Slightly less 32.8 percent of the respondents (n=131) have neutral about this statement. Whereas 30.8 percent of the respondents (n=123) have disagreed, they said that much chatting and texting is not a valid reason to keep in touch with people, it depends on the need for relationships.

This shows that the majority of the respondents agreed that much chatting and messaging is a good way to keep in touch with others.

7.6.3 Messaging, Chatting, and Texting more convenient than phone calls

Nowadays, Innovations in technology provide new space and words for communication. Different types of text-based creative “techlingo” for example, frequently use of shortening, clippings, contractions, Unconventional spellings, replacement of word-letter, replacement of word-digits, the combination of words, Initialisms, emoticons, and emojis etc. makes messaging, texting and chatting very easy, convenient and attractive. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.58: Chat and messaging is more convenient rather than talking on phone.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	132	33.0	33.0	33.0
Neither agree or Disagree	99	24.8	24.8	57.8
Agree	169	42.3	42.3	100.0
Total	400	100.0	100.0	

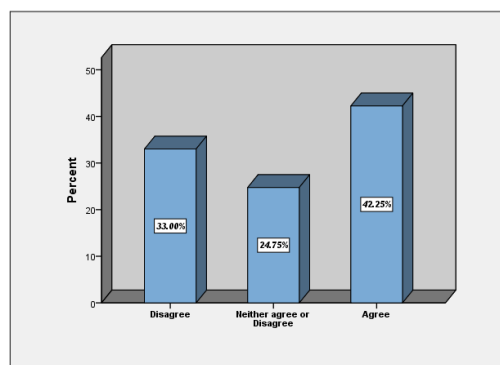


Figure 7.57: Percentage of Chat and messaging is more convenient rather than talking on phone

It is evident from table & figure that an overwhelming majority (42.3 percent) of the respondents have replied that different types of abbreviations and lexical shortening made chatting and messaging easy and convenient than talking on the phone. While slightly less 33 percent of the respondents (n=132) have replied disagree that chatting and messaging are not convenient than talking on the phone. 24.8 percent of the respondents (n=99) have replied neither agree or disagree means they are neutral about it. During the survey, they said that chatting, talk on the phone, and face-to-face talk depends on the basis of purpose, emotions, relationship type, etc. of communication.

The above data and researcher observation reveal that texting and chatting are more convenient than talking on the phone.

7.6.4 Use Textisms (abbreviation)

Table 7.59: I use textisms (abbreviation) in text messaging

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	88	22.0	22.0	22.0
	Rarely	101	25.3	25.3	47.3
	Always	211	52.8	52.8	100.0
	Total	400	100.0	100.0	

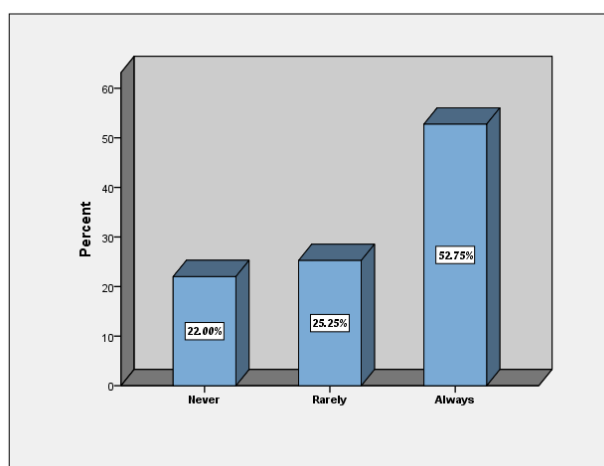


Figure 7.58: Percentage of always use abbreviation in text messaging

It is evident from the table & figure that almost half of the respondents, i.e., 52.8 percent have agreed that they always used abbreviations in their chatting and messaging during the interaction. Whereas 25.3 percent of the respondents have replied that, they rarely used it during the interaction. In this same context, very, few

i. e. 22 percent of respondents replied that they never used abbreviations during chatting and messaging. A large number of respondents have always used abbreviations.

This shows that different types of abbreviations frequently used by the individual as new and stylish communication patterns.

7.6.5 What extent Textisms use in communication

Internet and social networking sites provide various platforms for interaction. Nowadays, individuals use in text-based communication different types of lexical shorting such as abbreviations, alphanumerism, initialism, etc. words and sentences to communicate. To understand the in what extent respondents use textisms during messaging, chatting, and other text communication, respondents were asked question, which is presented in the following table & figure:

Table 7.60: I __% communicate through Textisms (abbreviations/ shortcuts words for example-omg, k,cu,g9t,lol, 2day,bday,b4, etc.) during chatting and texting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 - 25%	68	17.0	17.0	17.0
	26 - 50%	199	49.8	49.8	66.8
	51 - 75%	64	16.0	16.0	82.8
	76 - 100%	53	13.3	13.3	96.0
	Not use	16	4.0	4.0	100.0
Total		400	100.0	100.0	

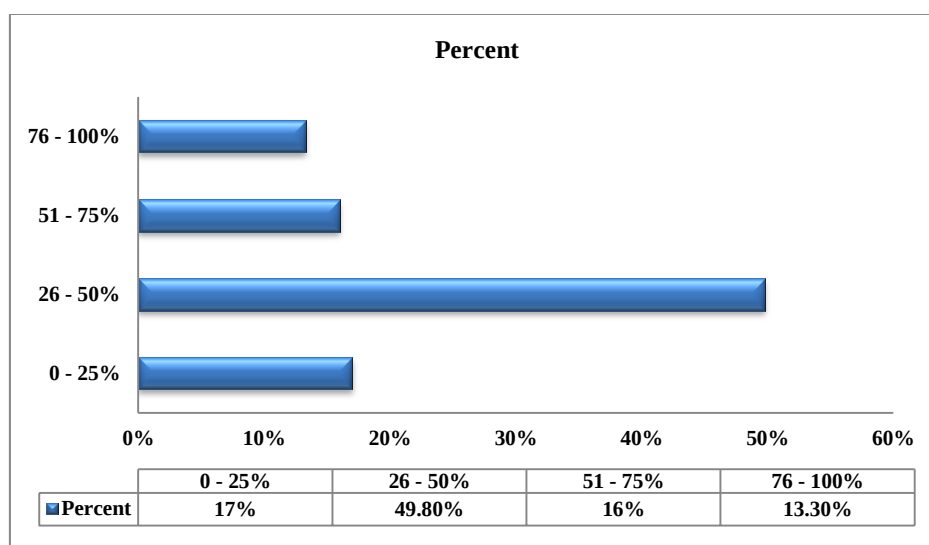


Figure 7.59: Percentage of communicate through Textisms (abbreviations/ shortcuts words)

The data presented above clearly shows that how many lexical shorting or textisms (abbreviations) words used during chatting and texting This found that an overwhelming majority (49.8 percent) of the respondents have used 26-50 percent of the abbreviation, phonetic, initialisms, alphanumerism, etc. words during chatting and messaging. Seventeen percent of the respondents have used 0-25 percent of the various textisms during chatting and messaging. While 16 percent of the respondents have said that, they used 51-75 percent textisms. 13.3 percent of the respondents have said that they used 75-100 percent of textisms means they completely communicate with an abbreviation, phonetic, initialisms, alphanumerism, etc. words, a message with emoticons and emojis. Whereas very few (4 percent) of the respondents answered Not use, means they never used the same during chatting and messaging. The data revealed on the basis of majorities that not in much quantity, but people mention lexical shorting and textisms in every text during chatting and messaging.

7.6.6 Uses of 2day, 2nite, g9t, gr88, 2morow, 4, etc (Alphanumerism words)

Alphanumerism is a Combination of alphabetical and numerical characters such as 2day, 2nite, g9t, gr88, 2morow, etc. many authors said in their studies that people often used alphanumerism words for communication. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.61: I use Alphanumerism words (2day, 2nite, g9t, gr88, 2morow, 4, etc) during texting, chatting, post, comments etc.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	131	32.8	32.8	32.8
	Rarely	84	21.0	21.0	53.8
	Always	185	46.3	46.3	100.0
	Total	400	100.0	100.0	

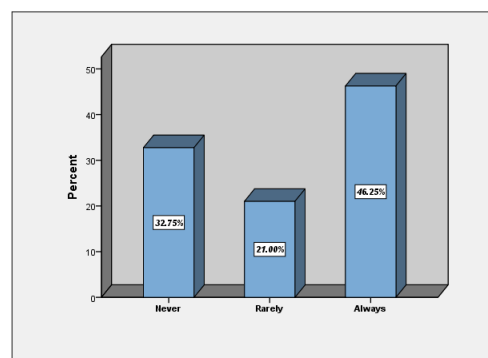


Figure 7.60: Percentage of Alphanumerism words during texting, chatting, post, comments etc

The table & figure shows the data of Alphanumeric words used by the sender and receiver during texting, chatting, post, comments, etc. it is clear from the table & figure that overwhelming majorities (46.3 percent) of the respondents have ‘always’ replied they used alphanumeric words during texting because of it easy in type and understand. It also takes less time and space during type. Whereas 21 percent of the respondents have replied ‘rarely’ that they sometimes use it in informal communication, and 32.8 percent of the respondents have ‘never’ replied that they not used alphanumeric words during text-based interaction.

The collected data reveals that the majority of respondents used alphanumeric words during texting, chatting, post, comments etc.

7.6.7 Uses of wat, dat, lob, u, kk, etc.(Phonetic words)

Phonetic words are the representation of spoken sounds, means, which we speak write as like as. It can be in Hindi and English. It depends on sound and pronunciations, for example- wat, dat, lob, u, kk, etc. It constitutes an alternation of ordinary spelling that better represents the spoken language. Many studies say phonetic words and sentences frequently used by individuals during messaging, chatting, posting, commenting etc. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.62: I use Phonetic words (wat, dat, lob, u, kk, etc) during texting, chatting, post, comments etc.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	70	17.5	17.5	17.5
	Rarely	106	26.5	26.5	44.0
	Always	224	56.0	56.0	100.0
	Total	400	100.0	100.0	

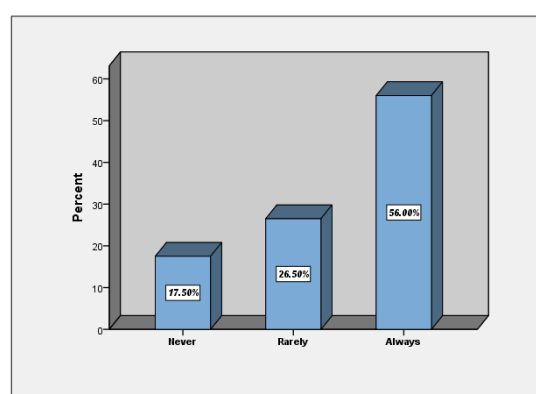


Figure 7.61: Percentage of Phonetic words during texting, chatting, post, comments etc

From the table & figure given above shows the data of phonetic words used by the sender and receiver during texting, chatting, post, comments, etc.

It is clear that the majority of respondents, i.e., 56 percent, have replied that they have always used phonetic words because it is simple and is written as it sounds. 26.5 percent of the respondents have replied rarely that they sometimes according to the situation (need) used the phonetic word during communication, whereas 17.5 percent of the respondents replied that they never used phonetic words and sentences during communication.

Therefore, data reveals that based on majorities, people frequently use phonetic words during messaging, chatting, post, comments, etc.

7.6.8 Uses of OMG, lol, BTW, CU, ttyl, etc. (Initialisms)

Initialisms (acronyms) also use in during messaging chatting, post, comments etc. where only use the first letter of words, for example, OMG, LOL, etc. For find out this person use initialisms or not, the respondents were asked the question, which is presented in the following table & figure:

Table 7.63: I use Initialisms (Acronyms) words (Omg, Lol, Btw, cu, ttyl, etc) during texting, chatting, post, comments etc.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	35	8.8	8.8	8.8
	Rarely	123	30.8	30.8	39.5
	Always	242	60.5	60.5	100.0
	Total	400	100.0	100.0	

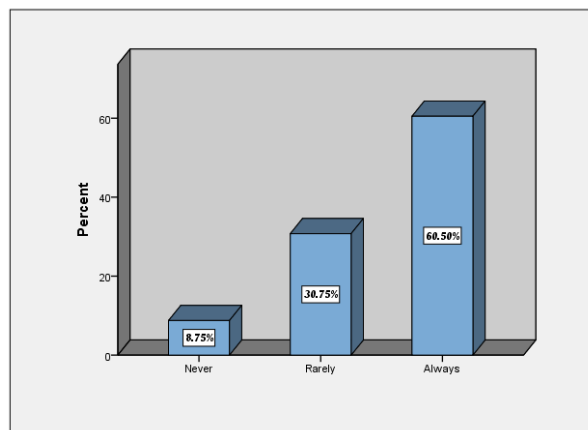


Figure 7.62: Percentage of Initialisms (Acronyms) words during texting, chatting, post, comments etc

The table & figure shows the data of initialisms (acronyms) words used by the sender and receiver during texting, chatting, post, comments, etc. It is clear from the

table & figure that an overwhelming majority (60.5 percent) of the respondents have always replied that they used Initialisms because it easily and frequently typed during messaging, chatting, post, comments, etc. Very few near about nine percent (8.8 percent) of the respondents have never replied that they had not used Initialisms words, while 30.8 percent of the respondents have replied rarely that they sometimes used Initialisms during the messaging, chatting, post, comments, etc.

The collected data reveals that the majority of respondents frequently used Initialisms during the messaging, chatting, post, comments, etc.

7.6.9 Understand the meaning of Textisms

Textisms (abbreviation) are like a short cut of words and sentences during text communication. These days most people use it during messaging and texting according to some studies, and this study also found that people are used textisms (abbreviated). So in order to know whether people understand the meaning of the textisms words during messaging and chatting. The respondents were asked the question, which is presented in the following table & figure:

Table 7.64: I understand the meaning of abbreviations (Textisms) based messages and chats during communication.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	11	2.8	2.8	2.8
	Rarely	87	21.8	21.8	24.5
	Always	302	75.5	75.5	100.0
	Total	400	100.0	100.0	

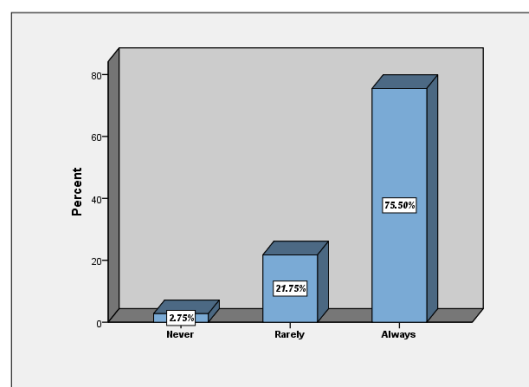


Figure 7.63: Percentage of understand the meaning of abbreviations (Textisms) based messages and chats

The table & figure shows the data of understanding the meaning of abbreviations (Textisms) based messages and chats during communication. It is quite clear from data that an overwhelming majority of respondents (75.5 percent) have

always replied that they frequently understand the meaning of textisms (abbreviation) based messaging and texting during communication. 21.8 percent of the respondents have replied rarely that they sometimes understand the meanings of abbreviations, whereas very few around 2.8 percent of the respondents have never replied that they not used and understand the meaning of abbreviations.

The data reveals that on the basis of majorities that most individuals use and understand the meaning of abbreviations (textisms) during messaging and chatting.

7.6.10 Textisms makes text easy and simple

In the previous question, data revealed that people use and understand the meaning of textisms (abbreviation) during messaging and texting. In the same way, to know the reason for using textisms in messaging and texting, the respondents were asked the question, which is presented in the following table & figure:

Table 7.65: I use an abbreviation in texting because it makes my text easy

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never	82	20.5	20.5	20.5
Rarely	84	21.0	21.0	41.5
Always	234	58.5	58.5	100.0
Total	400	100.0	100.0	

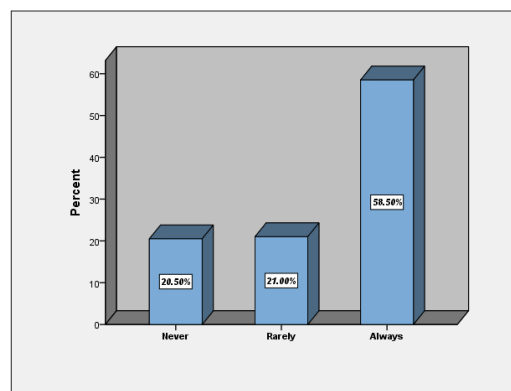


Figure 7.64: Percentage of abbreviations makes text easy

From the table & figure given above, it is clear that Out of total (n=400) respondents, majorities, i.e., 58.8 percent of the respondents, have always ‘replied.’ This means the use of abbreviations in texting makes the text easy and simple because it easily typed. 20.5 percent of the respondents have ‘never’ replied, that means, they completely denied the use of abbreviation makes texting easy and simple, whereas, 21

percent of the respondents have replied rarely that it maybe makes the text easy and simple or maybe not.

On the basis of majorities, the data reveals that the use of abbreviations (Textisms) makes text easy and straightforward.

7.6.11 Forget spelling of words and sentences

In previous questions, the researcher found that the majority of respondents said they frequently used textisms (abbreviations) during texting. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.66: I use an abbreviation in texting because sometimes I forget spelling of words

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	251	62.8	62.8	62.8
	Rarely	63	15.8	15.8	78.5
	Always	86	21.5	21.5	100.0
	Total	400	100.0	100.0	

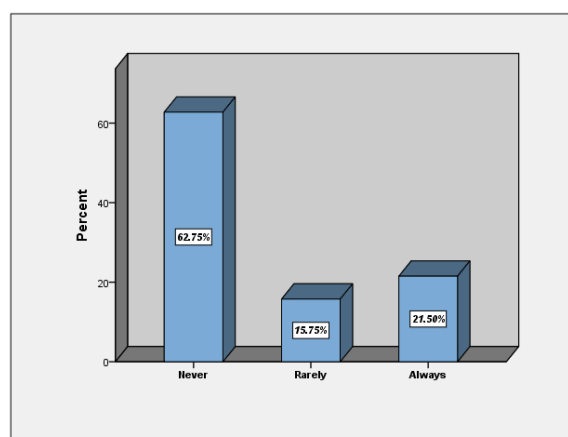


Figure 7.65: Percentage of use of abbreviations because forget spelling of words

It is evident from table & figure that a large majority of respondents i, e. 62.8 percent have replied never, which means forget of spelling of words is not a reason for the use of Textisms (abbreviations) during texting. They said that the use of abbreviation takes less time and space during texting. 15.8 percent of the respondents have replied rarely, which means sometimes forget of spelling of words may be the reason for the use of abbreviations, not always. Whereas 21.5 percent of the respondents have replied always, that means they used abbreviations because they forget the spelling of words.

The data reveals that on the basis of majorities, less time, quickly type, stylish text, etc., the reason for the use of abbreviation, not a forget of spelling of words.

7.6.12 Limitation of words space and Textisms

To know the other reason for the use of textisms in messaging, chatting, comment, post, etc. Respondents were asked that limitation of words space in messages, comment, posts, etc. are the reason for the use of abbreviations or not. To find out this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.67: I use an abbreviation in texting because of limitation of words space

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	214	53.5	53.5	53.5
	Rarely	62	15.5	15.5	69.0
	Always	124	31.0	31.0	100.0
	Total	400	100.0	100.0	

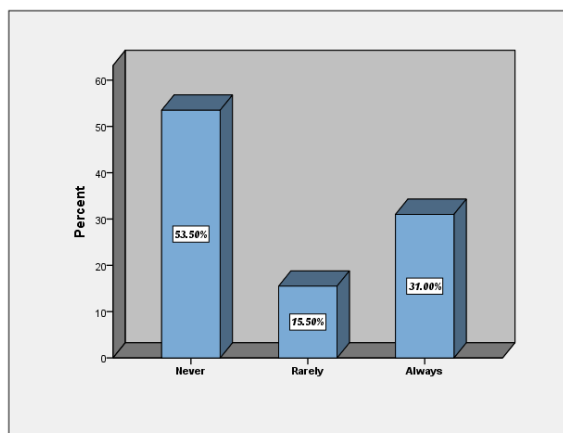


Figure 7.66: Percentage of use of abbreviation reason of limitation of words space

The table & figure above clearly shows that more than half of the respondents (53.5 percent) never replied, which means the limitation of words space is not a reason for the use of abbreviation during texting. The use of abbreviations makes our word stylish and creative, according to them. 15.5 percent of the respondents rarely replied that they believe that limitation of word space sometimes a reason for the use of abbreviation. Whereas, 31 percent of the respondents always answered that limitation of words space in messaging, comment, post, etc. is the reason for the use of abbreviations in texting.

On the basis of majorities, the data reveals that limitation of word space not a proper reason for the use of abbreviations during texting.

7.6.13 Whole conversation in one text

To understand whether there are any other reasons for using abbreviations during messaging and chatting etc. Respondents were asked the question of whether they use abbreviations because they want to write the entire conversation in a single message. The table & figure below shows the data on this question:

Table 7.68: I use an abbreviation in texting because I want to communicate whole conversation in one message which I want to say

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never	168	42.0	42.0	42.0
Rarely	91	22.8	22.8	64.8
Always	141	35.3	35.3	100.0
Total	400	100.0	100.0	

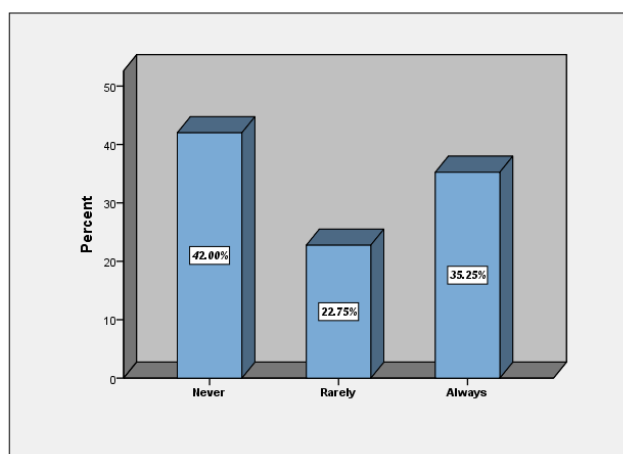


Figure 7.67: Percentage of use of abbreviation reason of whole conversation type in one message

From the above table & figure, it is evident that the majority of the respondents that are n=168 (42 percent) 'never' replied, that means the entire conversation in one message is not a reason for the use of abbreviation. 22.8 percent of the respondents rarely replied, which means they sometimes used abbreviations because they want to type the whole conversation in one message. Whereas, 35.3 percent of the respondents replied always, which means they only used abbreviation because they want to type the whole conversation in one message.

It implies that on the basis of majorities, that typed of entire conversation in one message is not a reason for the regular use of abbreviations during messaging and texting.

7.6.14 Take less time compared to full text

To find out, the reason for the use of textism (abbreviations) during messaging and chatting, respondents were asked questions that less time in type is the reason for the use of abbreviations. To understand this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.69: I use shortcuts and abbreviations in texting because it takes less time compared to full text during chatting.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never	77	19.3	19.3	19.3
Rarely	82	20.5	20.5	39.8
Always	241	60.3	60.3	100.0
Total	400	100.0	100.0	

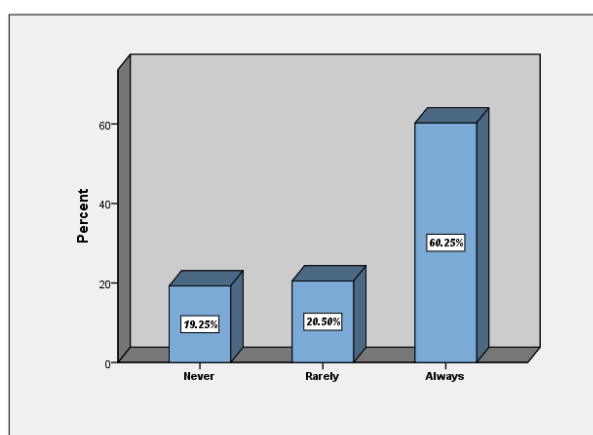


Figure 7.68: Percentage of use of the abbreviation is the reason of less time

It is evident from table & figure presented above that an overwhelming majority (60.3 percent) of the respondents have always replied that they used symbols and abbreviations because it takes less time compared to full text during text communication. Around twenty percent of the respondents never replied, which means it takes less time compared to full text is not a reason to use it. The use of abbreviation depends on types of text, situation, and conditions.

It implies that based on majorities, people use symbols and abbreviations because it takes less time to compare to full texting.

7.6.15 Necessary to follow grammar rules in Techlingo

Techlingo is a new variety of language for interaction, which is frequently used by the youngster. It also has a different type, for example, abbreviations, acronyms, emoticons, emojis, etc. Language is a very important part and base of any interaction. Every language has some rules and grammar for interaction. To understand this respondent was asked that in messaging and chatting, it is necessary to follow grammar. For know this, the respondents were asked the question, which is presented in the following table & figure:

Table 7.70: During the messaging and chatting it is necessary to follow grammar rules

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	135	33.8	33.8	33.8
Neither agree or Disagree	194	48.5	48.5	82.3
Agree	71	17.8	17.8	100.0
Total	400	100.0	100.0	

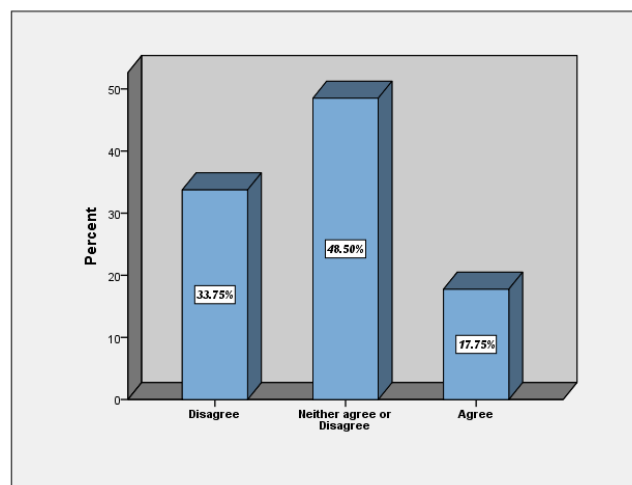


Figure 7.69: Percentage of in messaging and chatting necessary to follow grammar rules

When the researcher asked the general question that during messaging and chatting is necessary to follow grammar and other rules, the majority of respondents replied 'neither agree or disagree'.

Out of n=400 respondents, only 17.8 percent of the respondents replied agree that during formal messaging and chatting, grammar is necessary. 48.5 percent of the respondents replied neither agree or disagree that they sometimes follow grammar rules or sometimes do not follow. They said it depends on the condition and situation

of the conversation. While 33.8 percent of the respondents replied completely disagree that in messaging and chatting to follow grammar rule is not necessary. According to them, frequent use of abbreviations, acronyms, emoticons, emojis, etc. in messaging and chatting depends on the understanding of the sender and receiver. It also makes text communication easy, simple, and convenient.

The data reveals that on the basis of majorities that sometimes it is important and sometimes it is not.

7.6.16 Time spend on platform per day

How much time do you spend on following platforms per day?

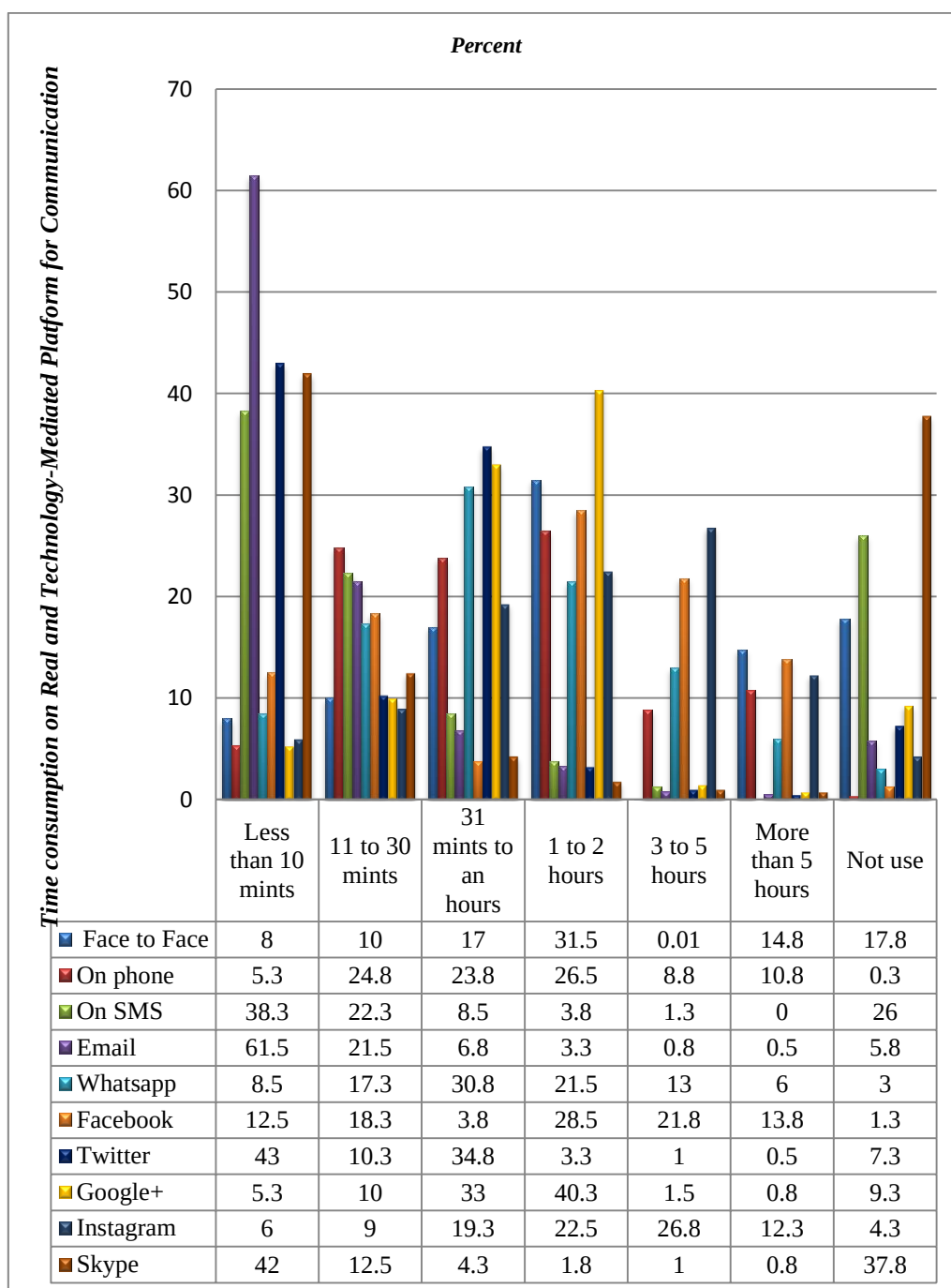


Figure 7.70: Percentage of Time consumption on Real and Technology-Mediated Platform for Communication

The above figure shows the, to what extent, people spend time on real (face-to-face communication) and Technology-Mediated various platforms for formal and informal interaction. It is quite clear from the collected data that the majority of

people spend time 31 minutes to between 2 hours per day on their choice of communication platform and method. For this, a total of n=400 respondents' answers was observed by the researcher. 31.5 percent of respondents replied that they spend 1 to 2 hours for face-to-face interaction, whereas 14.5 percent of respondents spend time more than 5 hours for it, and 17.8 percent replied that they not used real communication for informal interaction.

For the phone call based interaction, 26.5 percent, 24.8 percent, and 23.8 percent of the respondents answered that they spend on it time between 11 minutes to 2 hours. For the SMS based interaction, the majority, i.e., 38.3 percent of the respondents answered that they spend less than 10 minutes on it, whereas 26 percent have not used it for communication. For formal communication, respondents prefer E-mails and spend time between less than 10 minutes to 30 minutes for communication. In addition, various social networking sites such as WhatsApp 30.8 percent and 21.5 percent of respondents spend time between 31 minutes to 2 hours per day. On Facebook, 28.5 percent and 21.8 percent spend time between 1 to 5 hours per day, and on twitter, the majority of the respondents i. e. 43 percent and 38.4 percent of respondents spend time between less than 10 minutes to 1 hour. Other most-used platforms Instagram and Google plus, average time spent by the majority of the respondents, between 31 minutes to 1 hour, whereas 26.8 Percent spend time on Instagram 3 to 5 hours. On skype, 42 percent of the respondents spent less than 10 minutes per day, and around the same 37.8 percent not used skype for communication.

It can be concluded that users spend an average of 31 minutes to 2 hours per day, i.e., 120 minutes, on formal and informal text-based communication. In the Statista 2017 and 2018 reports, the average time spent per day by users was 135 to 153 minutes, included the overall use of the Internet and social networking sites such as YouTube videos, movies, and games. But for this study, the researcher has taken to the Internet and social networking sites only for the purpose of formal and informal interaction such as phone calls, messages, chatting, comments, posts, share photos, plan-making, etc.

7.7 Bivariate Analysis

Cross-tabulation of how ICTs correlated our daily Lifestyle

Bivariate analysis refers to the analysis of two variables to determine the relationships between them. In this study, the researcher has done bivariate analysis to know the relationship and association between ICTs and respondents' lifestyles. It explores the concept of association between two variables, whether there is a relationship or whether there is a difference between two variables and the significance of these differences. The cross-tabulation helps us, in grouping them into a table, to look at the relationship between two variables. In the field of SPSS, bivariate tables are also called crosstabs.

Cross-tabulation is one of the most effective analytical instruments and most used to analysis categorical data. Cross-tabulation is a two-dimensional table, which records the number of interviewees with the specific features described in table cell numbers. Crosstabs provide an array of data on the relationship between the variables.

Cross-tabulation is the most used method to calculate the relationships and associations between two variables in bivariate analysis. In this study, the researcher has used cross-tabulation to shows the percentage of relationships and associations between two variables.

7.7.1. Information and Communication Technologies use for Online Shopping

Table 7.71: ICTs use for Online shopping * Gender of the Respondents Crosstabulation

			Gender of Respondents		Total
			Male	Female	
Do you use ICTs for online shopping	Never	Count	46	22	68
		% within Gender of Respondents	18.0%	15.3%	17.0%
	Rarely	Count	33	17	50
		% within Gender of Respondents	12.9%	11.8%	12.5%
	Always	Count	177	105	282
		% within Gender of Respondents	69.1%	72.9%	70.5%
Total	Count		256	144	400
	% within Gender of Respondents		100.0%	100.0%	100.0%

The crosstabs show the 400 valid cases arranged in a table that shows the percentage of male and female said, Never, Rarely, or always for that, they used ICTs

for online shopping questions. Note that 69.1 % of the male and 72.9% of the female said “always” they use ICTs for online shopping, a percentage point difference of three. In addition, the round of the same percentage point’s difference (3.8 %) is seen between males and females who said “never.” It revealed that there is little difference between male's and female's responses, which also shows the relationship between males and females towards online shopping. Whereas 12.9% of the males and 11.8% of the females said rarely, that shows there is only 1.1% of difference in their responses. It revealed that there is a strong relationship between male and females responses to online shopping.

7.7.2 Information and Communication Technologies use for Learning and Education

Table 7.72: ICTs use for Learning and Education * Gender of the Respondents Crosstabulation

			Gender of Respondents		Total
			Male	Female	
Do you use ICTs for learning and education	Never	Count	33	19	52
		% within Gender of Respondents	12.9%	13.2%	13.0%
	Rarely	Count	20	17	37
		% within Gender of Respondents	7.8%	11.8%	9.3%
	Always	Count	203	108	311
		% within Gender of Respondents	79.3%	75.0%	77.8%
Total	Count	256	144	400	
	% within Gender of Respondents	100.0%	100.0%	100.0%	

The above crosstabs show the 400 valid cases arranged in a table that show, the percentage of male and female said, Never, Rarely, or always for that, they used ICTs (Internet/social networking sites, mobile phones) for Learning and education questions. Note that 79.3 % of the male and 75% of the female said “always” that they use ICTs for learning and education purpose, a percentage point difference of 4.3, and the round of the same percentage points difference (4 %) is seen between male and female who said “rarely”. Whereas, 12.9% of the males and 13.2% of the females said never, that shows there is only 0.3% of difference in their responses. It implies that there is no difference between male's and females' responses, which shows the relationship between males and females towards learning and education. It revealed

that there is a strong relationship between male and females responses toward learning and education purposes.

7.7.3. ICTs use for Sharing photos, videos, updates etc with friends, family and others

**Table 7.73: ICTs use for Sharing photos, videos, updates etc with friends, family and others *
Gender of the Respondents Crosstabulation**

			Gender of Respondents		Total
			Male	Female	
Do you use ICTs for Sharing photos, videos, updates etc with friends, family and others	Never	Count	21	12	33
		% within Gender of Respondents	8.2%	8.3%	8.3%
	Rarely	Count	18	13	31
		% within Gender of Respondents	7.0%	9.0%	7.8%
	Always	Count	217	119	336
		% within Gender of Respondents	84.8%	82.6%	84.0%
Total	Count	256	144	400	
	% within Gender of Respondents	100.0%	100.0%	100.0%	

The above crosstabs show from the valid 400 cases, the percentage of male and female said, Never, Rarely, or always for that, they used ICTs (Internet/social networking sites, mobiles phones) for Sharing photos, videos, updates etc. with friends, family and others questions. Notice that 84.8 % of the male and 82.6% of the female said “always” that they use ICTs for Sharing photos, videos, updates etc. with friends, family, and others, a percentage point difference of 2.2. In addition, less of the same percentage point’s difference (2 %) is seen between males and females who said “rarely”. Whereas 8.2% of the males and 8.3% of the females said never, that shows there is only .1% difference in their responses. It implies that there is no difference between males’ and females' responses, which shows the relationship between males and females towards Sharing photos, videos, updates etc. with friends, family, and others. It revealed that there is a very strong relationship between male and females responses toward Sharing photos, videos, updates etc. with friends, family, and other purposes.

7.7.4. ICTs use for update with news, events and other trending topics

Table 7.74: ICTs use for Keeping update with news, events and other trending topics * Gender of Respondents Crosstabulation

			Gender of Respondents		Total
			Male	Female	
Do you use ICTs for Keeping update with news, events and other trending topics	Never	Count	27	19	46
		% within Gender of Respondents	10.5%	13.2%	11.5%
	Rarely	Count	24	14	38
		% within Gender of Respondents	9.4%	9.7%	9.5%
	Always	Count	205	111	316
		% within Gender of Respondents	80.1%	77.1%	79.0%
Total	Count	256	144	400	
	% within Gender of Respondents	100.0%	100.0%	100.0%	

The cross tabs show the 400 valid cases arranged in a table that shows, the percentage of male and female said, Never, Rarely, or always for that, they used ICTs to keep updated with news, events, and other trending topics. Note that 80.1 % of the male and 77.1% of the female said “always” they use ICTs to keeping updated with news, events and other trending topics, a percentage point difference of 3, and the round of the same percentage points difference (2.7 %) is seen between male and female who said “never”. It revealed that there is the same difference between males and females' responses, which shows the relationship between males and females towards keeping updated with news, events, and other trending topics. Whereas 9.4% males and 9.7% of females said rarely, that shows there is only .3% of the difference in their responses. It revealed that there is a strong relationship between males' and females' responses towards keeping updated with news, events, and other trending topics.

7.7.5. ICTs use for making plan with Friends or Social groups

Table 7.75: ICTs use for making plans with friends and social groups * Gender of the Respondents
Crosstabulation

			Gender of Respondents		Total
			Male	Female	
Do you use ICTs for Making plans with friends/social groups	Never	Count	31	24	55
		% within Gender of Respondents	12.1%	16.7%	13.8%
	Rarely	Count	38	25	63
		% within Gender of Respondents	14.8%	17.4%	15.8%
	Always	Count	187	95	282
		% within Gender of Respondents	73.0%	66.0%	70.5%
Total	Count	256	144	400	
	% within Gender of Respondents	100.0%	100.0%	100.0%	

The above cross tabs show the 400 valid cases arranged in a table, which shows the percentage of male and female said, Never, Rarely, or always for that, they used ICTs (Internet/social networking sites, mobiles phones) for making plans with friends and social groups questions. Note that 73 % of the male and 66% of the female said “always” that they use ICTs for making plans with friends and social groups purpose, a percentage point difference of 7, and the round of the same percentage points difference (4.6 %) is seen between male and female who said “never”. Whereas 14.8% of males and 17.4% of females said rarely, that shows there is 2.6% of difference in their responses. It implies that there is a difference between males’ and females' responses, which shows less relationship between males and females towards making plans with friends and social groups. It revealed that there is little relationship between male and females responses toward making plans with friends and social group purposes.

7.7.6. ICTs use for Interaction with celebrities

Table 7.76: ICTs use for Interacting with celebrities * Gender of the Respondents Crosstabulation

			Gender of Respondents		Total
			Male	Female	
Do you use ICTs for Interacting with celebrities	Never	Count	117	61	178
		% within Gender of Respondents	45.7%	42.4%	44.5%
	Rarely	Count	51	30	81
		% within Gender of Respondents	19.9%	20.8%	20.3%
	Always	Count	88	53	141
		% within Gender of Respondents	34.4%	36.8%	35.3%
Total		Count	256	144	400
		% within Gender of Respondents	100.0%	100.0%	100.0%

The above crosstabs table shows from the valid 400 cases the percentage of male and female said, Never, Rarely, or always for that, they used ICTs (Internet/social networking sites, mobile phones) for Interacting with celebrities questions. Notice that 34.4 % of the male and 36.8% of the female said “always” that they use ICTs for Interacting with celebrities, a percentage point difference of 2.4. Besides, the round of the same percentage point difference (3.3 %) is seen between males and females who said “never”. Whereas 19.9% of males and 20.8% of females said rarely, that shows there is only .9 percent difference in their responses. It implies that there is very little difference between males’ and females’ responses, which shows the relationship between males and females towards Interacting with celebrities. It revealed that there is a strong relationship between male and female responses toward Interacting with celebrities’ purpose.

7.7.7. ICTs use for finding new friends

Table 7.77: ICTs use for Finding new friends * Gender of the Respondents Crosstabulation

			Gender of Respondents		
			Male	Female	
Do you use ICTs for Finding new friends	Never	Count	57	52	109
		% within Gender of Respondents	22.3%	36.1%	27.3%
	Rarely	Count	61	33	94
		% within Gender of Respondents	23.8%	22.9%	23.5%
	Always	Count	138	59	197
		% within Gender of Respondents	53.9%	41.0%	49.3%
Total	Count	256	144	400	
	% within Gender of Respondents	100.0%	100.0%	100.0%	

The cross tabs show the 400 valid cases arranged in a table that shows what percentage of male and female said, Never, Rarely, or always for that, they used ICTs for finding new friends questions. Note that 53.9 % of the male and 41% of the female said “always” they use ICTs for finding new friends, a percentage point difference of 12.9%, and the round of the same percentage points difference (13.8 %) is seen between male and female who said “never”. It revealed that there is the same difference between males’ and females’ responses, which shows the relationship between males and females towards finding new friends. Whereas 23.8% of males and 22.9% of females said rarely, that shows there is only .9% difference in their responses. It revealed that there is no relationship between males’ and females’ responses towards finding new friends.

7.7.8 ICTs use for Interaction

How frequently do you use ICTs for interaction?

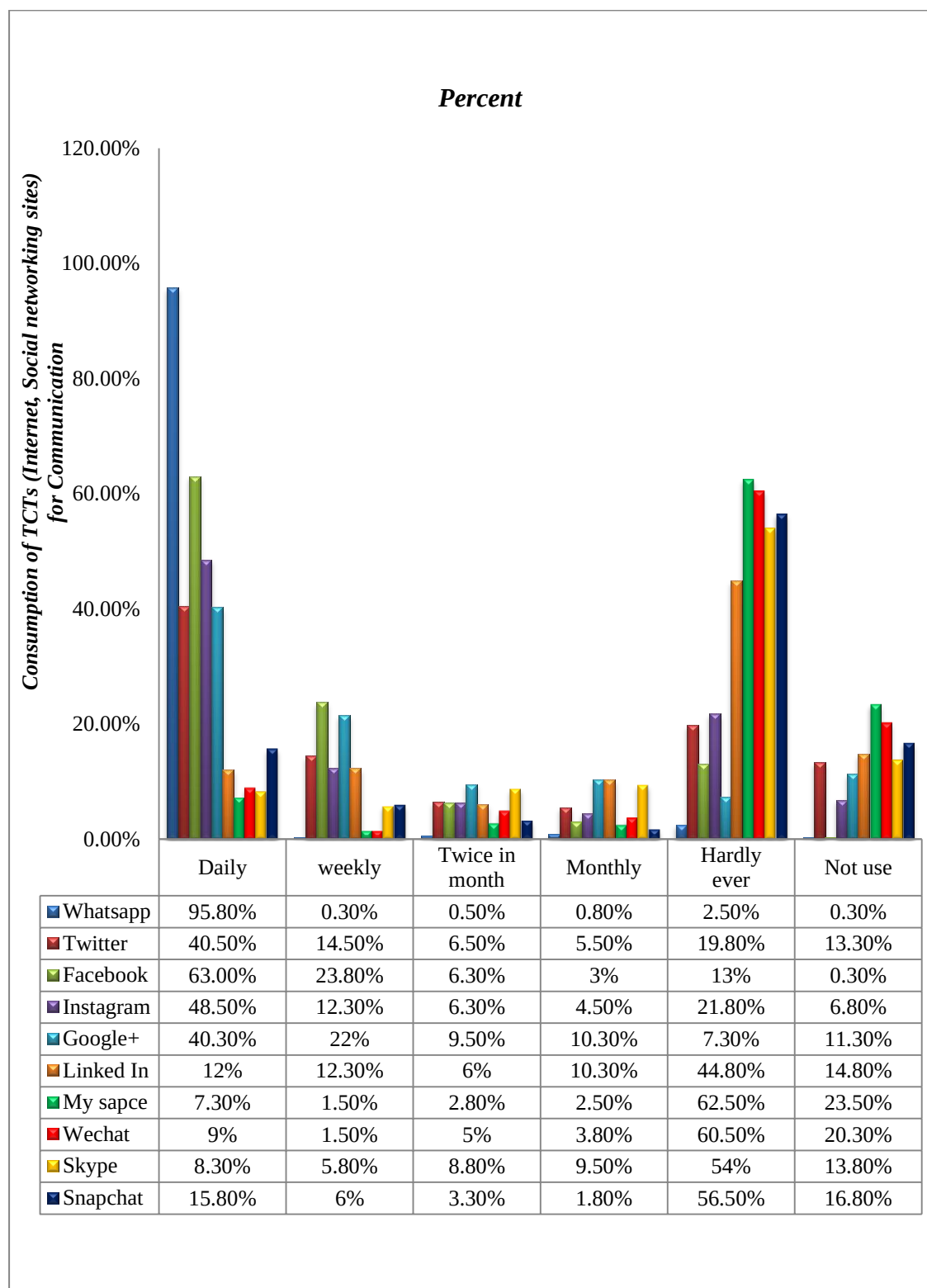


Figure 7.71: Consumption of ICTs (Internet, Social networking sites) for Communication

The above figure shows the, to what extent people consume the internet and social networking sites for communication and other activities regularly. For this, a

total of n=400 respondents' answers was observed by the researcher. It was found that the majority of respondents used given all social networking sites for communication. 95.80 percent used Whatsapp for daily basis communication and in the same context only .3 percent i. e., n=1 does not use it. 40.50 percent replied that they used twitter daily for interaction, whereas 14.50 percent used weekly twitter for formal interaction.

63 percent of respondents have used facebook for daily interaction, whereas 23.80 percent used it on a weekly basis. Besides, the respondents also used instagram for daily interaction. 40.30 percent of the respondents are used google + (plus) for the daily interaction, and other activities. . Besides of this Linkedin, myspace, wechat, skype, and snapchat have very less used by the respondents on daily and weekly basis. It all (Linked in, my space, wechat, skype, and snapchat) hardly used for communication and other activities, which is differs from the pew survey global report.

So the collected data revealed that in the Indian context, Whatsapp, twitter, facebook, instagram, and google+ has been consumed for the communication on a daily basis frequently and regularly, whereas, Linkedin, myspace, wechat, skype, and snapchat has been used for hardly ever for communication.

7.8. Hypotheses Testing

7.8.1 Hypothesis - 1

H₁: Information and Communication Technologies plays a role to maintain Interpersonal Communication.

H₀: *There is no significant Role of ICTs in maintaining Interperson Communication among the respondents.*

H₁: *There is significant Role of ICTs in maintaining Interpersonal Communication among the respondents.*

ROLE OF ICTs IN MAINTAINING INTERPERSONAL COMMUNICATION AMONG RESPONDENTS

The objective was to study the Role of ICTs (various tools and techniques) in Maintaining Interpersonal Communication among respondents. There were Improved, Unimproved, Smooth, Strained and No effects were the five choices for the responses. The data were analysed with the help of Chi-square and the results are given in following tables.

Table 7.78.a: Test Statistics

	ICTs and Interpersonal Communication
Chi-Square	199.500 ^a
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 80.0.

Table 7.78.b: Chi-square Value for Choices of Respondents

Choice	Observed Frequency	Chi-Square Value	Remark
Improved	99	199.50	p<0.01
Unimproved	23		
Smooth	177		
Strained	26		
No effect	75		

From the tables, it can be observed that the chi-square value is 199.50 which is significant at 0.01 with df = 4. It shows that the choices of respondents differ significantly. So the null hypothesis that there is no significant Role of ICTs in Maintaining Interpersonal Communication among respondents is rejected. Maximum respondents were of the opinion that ICTs helps in Maintaining Interpersonal Communication smooth among respondents.

7.8.2. Hypothesis - 2

H2: Individuals frequently use digital Non-verbal cues in place of words and sentences.

H₀: *There is no significant association between uses of digital Non-verbal cues in place of words and sentences and gender of among the respondents.*

H₁: *There is significant association between Uses of digital Non-verbal cues in place of words and sentences and gender of among the respondents.*

ASSOCIATION BETWEEN USE OF DIGITAL NON-VERBAL CUES AND GENDER OF THE PARTICIPANTS

The objective was to study the association between use of digital Non-verbal cues and gender of among the respondents. There were two levels of Gender, namely, Male and Female while Never, Rarely and Always were the three levels of use of digital Non-verbal cues. Thus, the data were analysed with the help of Chi-square Test and the results are given in following tables.

Table 7.79.a: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.251 ^a	2	.535
Likelihood Ratio	1.254	2	.534
Linear-by-Linear Association	.147	1	.701
N of Valid Cases	400		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 27.36.

Table 7.79.b: Use of digital Non-verbal cues and gender-wise observed frequencies and Chi-Square value

Gender	Never	Rarely	Always	Chi-Square Value
Male	50	82	124	1.25
Female	26	40	78	

Here $p \text{ value} > 0.05$ (.535 > 0.05). The Pearson chi-square value is 1.251 with $df = 2$ is not significant at 0.05.

From the tables, it can be seen that the Chi-square value is 1.25, which is not significant. It shows that the use of digital Non-verbal cues of Male and Female respondents did not differ significantly. Therefore, there was no significant association between gender and use of digital Non-verbal cues of respondents. Thus, the null hypothesis that there is no significant association between use of digital Non-verbal cues and gender of the respondents is not rejected. It may, therefore, be said

that both Male and Female respondents were found to Use of Digital Non-verbal Cues to the same extent.

7.8.3. Hypothesis - 3

H3: Individuals frequently use various types of Textisms forms in place of full words and sentences.

H₀: *There is no significant association between uses of Textisms in place of words and sentences and gender of among the respondents.*

H₁: *There is significant association between uses of Textisms in place of words and sentences and gender of among the respondents.*

ASSOCIATION BETWEEN USE OF TEXTISMS AND GENDER OF THE PARTICIPANTS

The objective was to study the association between use of Textisms in place of words and sentences and gender of among the respondents. There were two levels of Gender, namely, Male and Female while Never, Rarely and Always, Never and Rarely were the three levels of use of Textisms in place of words and sentences among respondents. Thus, the data were analysed with the help of Chi-square Test and the results are given in the following tables.

Table 7.80.a: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.490 ^a	2	.106
Likelihood Ratio	4.401	2	.111
Linear-by-Linear Association	.482	1	.488
N of Valid Cases	400		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 31.68.

Table 7.80.b: Use of Textisms in place of words and sentences and Gender -wise observed frequencies and Chi-Square value

Gender	Never	Rarely	Always	Chi-Square Value
Male	48	66	142	4.49
Female	40	35	69	

Here p value > 0.05 (.106 > 0.05). The Pearson chi-square value is 4.490 with df = 2 is not significant at 0.05

From the tables, it can be seen that the Chi-square value is 4.49, which is not significant. It shows that use of Textisms in place of words and sentences of Male and Female respondents did not differ significantly. Therefore, there was no significant association between gender and use of Textisms in place of words and sentences among respondents. Thus, the null hypothesis that there is no significant association between gender and use of Textisms in place of words and sentences among respondents is not rejected. It may, therefore, be said that both Male and Female respondents were found to use of Textisms in place of words and sentences to the same extent.

7.9. Analysis of Experts Views and Opinions

Objective 5 : To study the influence of information and communication Technologies on individuals' behaviour

Hypothesis 5: Information and communication technologies are affecting individuals' behaviour.

7.9.1 Analysis of Experts Views and Opinions on ICTs Users and their Behaviours

Nowadays, technology, especially the internet and social networking sites, has become an essential part of our life. Most people in the world today use the internet and social networking site to connect and communicate at a large level. Not only communicate, but people depend on the internet and social networking for maintaining relationships, shopping choices, good humor, educations, learning, making friends etc. We can say that we are totally dependent on the internet and social networking sites. More dependency affects human behaviors negatively and positively. Without any doubt, human behavior is also changed along with the rise of the internet and social networking sites. To know the internet and social media brings which type of behavior changes, the researcher has conducted an in-depth interview with some experts. Through experts', views the researcher has tried to find out what kind of behavioral change individuals facing during frequently use of internet and social networking sites.

To explore the objective-5 of this study, i.e., *“To study the influence of Information and Communication Technologies on Individuals Behaviour,”* the researcher had needed to views and opinions of experts. For this purpose, the researcher conducted an in-depth interview with the Internet and social networking experts and psychologists. To find out the objective, experts were asked the following questions:

Q. How and why ICTs are changing the behavior of individuals in day-to-day life. What type of effect has been observed?

Mr. Amit Joshi, Author of book of “TIMEPASS” A story of internet addiction and Blogest.

I have seen very drastic changes in the behavior of individuals due to the internet and social media. Over the time if we observe behavior realistically, it has changed completely. If we talk about academic and work performance, then the internet and networking sites have increased the problem of lack of focus in this context. This means it creates a lack of focuses and concentration toward academic and work performance.

Technology gives us all the facilities in one-finger tips, which makes individuals completely dependent on it; we do not use our brain to know and do something. He said that students have more trust in Google and Internet than the teacher's knowledge. Internet and social networking sites are also the cause of negativity and depression in individuals. Different types of emotionless news, violence-based news; sensitive news, etc. have a negative effect on the person. Every time browsing behavior gives us a lot of unnecessary information, which we do not need, that became causes depression and stress. Now individuals prefer internet browsing to read a book. The internet profoundly affects personal reading habits.

Dr. Rachana Bhargava, Clinical psychologist, Behavioral Addictions Clinic (BAC), All India Institute of Medical Sciences, New Delhi (AIIMS).

Dr. According to Rachana Bhargava, cases of internet addiction among youth in the behavioral center have been increasing day by day since the facility started. She observed that most youth and young adults are experiencing behavioral problems. She said that the uncontrolled use of the internet, social media, gaming, gambling, pornography, etc. affects their daily activities.

I noticed that Internet addiction is often associated with mood disorders and because of this; we are not able to understand the particular behavior of individuals at a time, which means that they behave according to their mood changes.

Some people always start living in depression and anxiety. I think depression and anxiety are the effects of the internet and social media, but sometimes it can be linked to other reasons. She said those who have behavioral engagement via the internet are remembering this means that they are a co-condition of depression or anxiety. She said that Internet addiction is also a mental disorder. It is a cause of stress.

She said that uncontrolled users spend too much time on the internet, which is the reason for the poor academic performance of students and avoidance of adults' work habits. People start spending much money due to habits of bating, gambling, and gaming on sites, which leads to theft and various forms of violence.

She said that most of the youth and teenagers are getting obsessed with mobile phones and computers, because of which they stop interacting or mingling with friends and family members and always try to keep a distance.

News Scroll in Outlook, October 2108, Dr. Rachana said: "Individuals develop an imaginary world and confine themselves within it". She said that excessive time spent in the virtual world encourages young people to stay out of the real world.

Dr Yatan Pal Singh Balhara, HOD of Behavioral Addictions Clinic (BAC), All India Institute of Medical Sciences, New Delhi (AIIMS).

According to Dr. Yatan Pal Singh Balhara, anxiety and substance abuse have also become a reason for the frequent use of social media and Internet addiction. I have seen and dealt with many such patents accustomed to the Internet. Frequently use of the Internet totally changes your behavior negatively toward academic and work performance, which becomes the reason for failure and poor performance.

Anxiety is a major problem for Internet users. It can also be from small, trivial things with internet users such as the one I posted, how many people are watching it or not, how many people liked it, or not, which makes people nervous.

If I have made a post, what kind of comments are coming on that post, negative is coming, positive is coming. Because of that post what people will think of me, what kind of image people have created about me that all are the cause of depression.

He said, this is my experience now people think that now there is no need to meet anyone or make an appointment to talk and plan get together at all. Even at the professional level, also people prefer to talk on phone, mail, and chat rather than face-to-face meetings. They do not give priority in real meet or world; they give priority to the virtual world. This has been seen a big change in an individual's behaviors.

Frequently use of Internet and social media made people less open to the real world. I found most of the users have a lack of confidence in the real world; that type of individual only confident and comfortable only on social media and phone interaction.

Due to the excessive use of social media, people start living in the pathological domain. What are other people and friends posting? Where are people going? What are they doing? They all start making a difference. Not even this, if they have posted a post, how many people are watching it, how many people are liking it, this also makes a big difference to them. Sometimes, if his/her post does not get many likes, then he/she does not feel good, and they become very emotional too. This kind of behavioral change I have seen in patients.

He said internet and social media and internet not only affect adolescents, it affects all age groups frequently users. According to a national mental health survey of India, estimates the current prevalence of mental disorders in the age group 18-29 at 7.39 percent and lifetime prevalence at 9.54 percent.

In the Times of India report, February 2019, Dr. Balhara said internet deeply affects individual's behaviors. He shared the case of two brothers who were addicted to gaming. He said that they had no time for studies, meals, bathing or changing clothes. They slept fitfully, ignored phone calls and the doorbell, and twice turned a blind eye to robbers cleaning out their house. The most odious symptom of their decline was the habit of defecating and urinating in their clothes while playing.

Q. How does internet and social networking sites affect human?

- a) Personal life,**
- b) Social life, and**
- c) Professional life**

Mr. Amit Joshi

He said it does not affect only individuals' personal life; it affects their social and professional life also. Uncontrolled use of the internet and social media hamper your health, your daily routine activities, your good habit, etc., which affect your personal development and growth. Keep yourself busy all time on social media also

harm your social life and social activity. Frequently use it in the workplace also harms the quality of work because you do not properly concentrate.

It becomes the reason for poor academic and works performance nowadays. These days' frequently used social media became the kind of disease.

Dr. Rachana Bhargava

I observed people who frequently engage with the internet and social networking site; they avoid their family members, their kids even they neglect their personal health, development, and growth.

Frequently engaged people with internet and social networking sites always live in a virtual world. They are always refused to go outside with their friends and family members. They started neglecting social interaction, social commitments etc. these all reason affects individual social life.

Professional is being started avoiding their work. They do not take any work seriously because they all-time operating internet and social networking sites, which become the reason of poor performance and affect their professional life.

Dr Yatan Pal Singh Balhara

He said when people use social media and internet according to their needs than it positive associate with their life. But when people started to used it without any need excessively, for example, if people prefer social media and the internet than a social gathering, they replace their personal activities like their work, study, food, family time etc. from social media, so it deeply affected personal life. Internet and social media affect social life; basically social life is personal extension life like people started replacing their social gathering, social commitment, real face to face interaction etc. from social media and the internet.

Without any doubt, the internet and social media affect professional life also. If you are not able to regulate it at the time of work, then it hampers your productivity. It may become a reason for complaint against you.

Q. Do you think internet and social networking sites are the reason of Social Isolation?

Mr. Amit Joshi

According to Mr. Amit Joshi, internet and social media is a reason for social isolation. Frequently use of social media makes people isolated from society and their peers. It makes people introvert, which is the reason for social isolation. It creates gaps in real communication. Internet and social media give the virtual world to an individual for communication, which creates by individuals own self, that not real life. Sometimes people getting isolated because others and friends are enjoying their life a lot, and they are not, that makes a big difference in them. The lack of confidence to faced in real-life also a reason for isolation.

Dr Rachana Bhargava

According to Dr. Rachana, it is not a reason; it is cause and effect of loneliness; hence individuals feel loneliness, and they start operating the internet and social networking sites. This makes individual isolate from society. This social isolation and loneliness force individuals to engage you with the internet and other websites. She also said that it had been seen and many studies say that loneliness one of the factors of social isolation.

She said it not affecting and isolate child only it affected adult and the elderly means all age group.

Dr Yatan Pal Singh Balhara

I would say on it that social isolation in terms of real-world interaction, not on social media. Because through social media, we connect to people in virtual life, but it replaces our real-life interaction. Which is social isolation? Through social media and the internet, people can quickly connect around the world.

7.9.2. Key Points effects of ICTs based on Experts Views and Opinions

Table 7.81: Major Effects of Internet and social networking sites observed by Experts and various study

Major effects	Expert1	Expert2	Expert3	Various study
Anxiety	Yes	Yes	Yes	Yes
Loneliness	No	Yes	Yes	Yes
Depression	Yes	Yes	Yes	Yes
Substance abuse	Yes	Yes	Yes	Yes
Social Isolation	Yes	Yes	No	Yes
Academic performance	Yes	Yes	Yes	Yes
Work performance	Yes	Yes	Yes	Yes
Mood change disorders	Yes	Yes	Yes	Yes

During the last ten years, the rapid development of social networking sites has created a new medium for human interaction but has also greatly influenced the behavior of individuals. The above table shows the major effects of the uncontrolled use of ICTs on individual behaviors and similarities in expert's opinions and various studies. According to Expert 1 (**Mr. Amit Joshi**), the Internet and Social networking reduced loneliness and provided a virtual society for interaction where people have many options for interaction and other things. Whereas, according to expert 3 (**Dr. Yatan Pal Singh Balhara**), the internet and social networking sites are not isolated the people. However, it attached the people with virtual society for social interaction.

The researcher has derived the following key points that affect the behavior of a person based on the views of experts.

- ICTs (Internet and Social Networking Sites) have significantly changed human behavior.
- Uncontrolled use of the Internet and social networking sites has led to a decrease in educational and work performance.
- ICTs have made the person completely dependent. Now people do not use their brains for information, search, calculation, and other activities.
- It found that ICTs provided lots of unnecessary information that we do not need at that time.
- It was found that ICTs provide much unnecessary information that we sometimes do not need.

-
- The internet affected the personal reading habits of the individual. Now individuals prefer internet browsing to read a book.
 - ICT has affected the daily activities of humans. ICT has affected the daily activities of humans. They started to avoid work, food, study, exercise, and family.
 - Various websites, such as gaming, gambling, and pornography sites, have increased unnecessary violence and other activities.
 - The heavy use of the Internet has increased the problem of mood disorder among its users.
 - It was found, on the basis of experts' views, it increased depression and anxiety in their users.
 - Based on the views of experts, it is concluded that the Internet and social networking sites have increased depression and anxiety among its users.
 - Obsessed users of the internet and social networking sites stop the interaction and mingling yourself with their friends and family.
 - Internet and Social Networking Sites have played an important role in keeping people away from their family and friends.
 - ICTs totally destroyed the professionalism of communication; for example, now people do not take any type of appointment and permission for talk or call.
 - Uncontrolled use of the Internet and social networking sites has affected individual personal health, growth, and development. Now people have started neglecting social interaction and social commitments.
 - ICTs isolated the people from their society that became the reason for loneliness. Loneliness attracted the people toward a virtual based society.

7.9.3 Analysis of Experts Views and Opinions on following various objectives

Objective1: To study the role of ICTs (various tools and techniques) in maintaining interpersonal communication among the respondents

Objective2: To study the uses and effects of ICTs in the context of interpersonal and face- to-face communication

Objective3: To study the association between the use of digital Non-verbal cues in place of words and sentences and gender of among the respondents

Objective4: To study the association between the use of Textisms in place of full words and sentences and gender of among the respondents

Q. Do you think the internet and social networking sites are makes people more interactive.

Dr. Rachana Bhargva: According to expert Dr. Rachana internet, social networking sites, and mobile phone does not make people more interactive; it makes communication easy. It makes people busy when they are only browsing different sites and playing games.

Dr. Yatan Pal Singh Balhara: said social media and mobile phones make people more interactive. It fills the communication gaps between people and groups around the world. It made communication very easy and comfortable. Because of social media and mobile phones, we do not need to psychical presence for communication. This is the great contribution of technology and social media. Interaction and communication is a basic need of our life to maintain a personal, social, and professional relationship. If we talk about human history, people are communicating from the start. In the previous time, for communication, only people are cover the miles of distance on foot, after that telegram, letters, phones etc. so I observed on the basis of progression, internet, and social media provide us a very easy and economical platform for communication. It improves the connectivity between people.

Mr. Amit Joshi: Social media and Mobile make people interactive only on the social media platform, not in reality. These days technology provides many platforms to communicate, which made interaction very easy and economical and forced people to interact. If individuals get bore, feel lonely, etc., they can start quick interaction with to help of social media and mobiles.

Q. Do you think ICTs (internet, phone calls, social networking sites) replacing face-to-face communication?

According to expert **Dr. Rachana**, to avoiding verbal interaction, people do chat and phone communication. Sometimes people have lots of stress and workload, so they avoid face-to-face interaction and start chat only. In chatting, people are not bound to an immediate answerer. They can use the answerer according to their convenience. So without any doubt internet and social networking sites are replacing face-to-face communication.

Dr. Yatan Pal Singh Balhara: I do not say the internet, social media, and mobiles properly replaced face-to-face communication. Actually, it made communication very easy and comfortable, and we human beings by nature always prefer to do any things in an easy and comfortable way. It is a big reason for the replacement of face-to-face communication. From a psychiatrist's perspective, i have seen many people who are not comfortable and having a lack of confidence in the real interaction, so they always replace face-to-face interaction and prefer social media and mobiles for communication. It is a social anxiety disorder. Which increases the lack of confidence in individuals day by day?

According to **Mr. Amit Joshi**, it is not replacing. It replaced face-to-face interaction. These days people are so busy with family, workloads, problems, etc. they do not have time to meet relatives, friends, etc. for maintaining relationships, here and in this situation social networking sites and mobiles are playing a very important role. He said only because of the internet, social media and mobiles phone we are able to maintain communication around the world at one time very strongly. It saves time and money. Nowadays, individuals used it for personal, social, and professional work, for example, greetings, invitations, jobs interview etc. everywhere, it full fill the requirement of face to face communication.

Q. How do technology-mediated different Non-verbal cues (👍😊) are taking place of words and sentences for interaction in the present scenario? Explain.

According to **Dr. Yatan Pal Singh Balhara**, signs and symbols, for example, emoticons, emojis are taking the place of non-text-based language. Because when we communicate through chatting, messaging etc. we always try to keep our text short and simple. In préising, the text emoticons and emojis play a very important role with expression. People easily understand the meaning of it during communication, and now it is becoming a universal language. He said to save time and to make text-inserting people use it. He also said this is suitable for chatting, the messaging etc. platform only. When it comes to paper, maybe it creates problems.

He said signs and symbols always a part of different languages, for example, in English and Hindi language, we used full stop, a hyphen, commas, punctuations, etc. through signs and symbols. The starting of language also happens with signs and symbols. In English and Hindi language, we less used signs and symbols, and in text-based communication, we used more signs and symbols than words and sentences. He said that emoticons and emojis are replacements and digitization of non-verbal

communication. Yet it is a starting face of expression-based signs and symbols communication patterns; in the future, may it come more realistically. Because technology rapidly growing day by day and providing different types of communication patterns.

Q. It is observed, that people frequently used the Textisms (2day, gnt, luv, kk, lol, etc.) during chatting, messaging and online texting, do you think it is becoming the mainstream short form of text language for communication.

Yes, at social media platforms, during messaging, chatting, etc., most people frequently using abbreviations for communication, Dr. Yatan Pal Singh Balhara said.

He said nowadays, a short form of words and abbreviations is very trendy during communication. It is easy to write, easy to understand, taking less space during messaging, and chatting. I have also seen many abbreviations included in the dictionary, which show the full form of abbreviations. He said yet this type of abbreviation used in informal communication on technology-mediated platforms. If we use it in real writing on formal communication, maybe it creates problems because of the lack of full forms. In informal communication, people are using different abbreviations.

He also said that Abbreviations, not proper words, and image it is in between like it a hybrid type of language or communication patterns, but it is a valid mean of communication.

Q. How do different Non-verbal cues ( ) and textisms (2day, gnt, luv, kk, lol, etc.) affect our written languages and behaviors?

Dr. Yatan Pal Singh Balhara said emojis and abbreviations is a pattern of communication but only on the technology. However, I observed some individuals using it formally also, which affect the language. The habit of the use of emoticons, emojis, and abbreviations, create a spelling mistake problem in an individual. It affects the growing student's literacy level. It affects individuals' work and academic performance. He said not in a formal, but in informal communication patterns, it keeps relevance. He said when the receiver understands what senders want to say, that full fill the purpose of communication. Frequently use of symbols and abbreviations can develop learning disabilities in individuals, which affects our reading and writing habit.

7.9.4 Key Points based on Experts Views and Opinion

- ICTs made communication easy and economical, that made people more interactive. It filled the gaps between people and groups around the world, made communication very comfortable, and maintained people's personal, social, and professional relationships.
- ICTs improved connectivity between people. For example, if individuals get bore, feel lonely, etc, they can start quick interaction.
- It was found that ICTs replaced face-to-face communication. There is no barrier to immediate answers, we can use our time and needs, we can talk whenever we want, and we can talk anywhere from that place. All these features make technology-based communication unique, so technology-based communication has replaced face-to-face communication.
- The convenience of digital nonverbal cues such as emoji, stickers, and GIFs made technology-mediated communication patterns more powerful because they have the power to convey sentiments and emotions as real communication. It is a big reason for the replacement of face-to-face communication.
- Digital non-verbal cues replaced the words and sentences during chatting and messaging. It was found that now is used as language during chatting and messaging. Some studies have said it a universal language. Signs and symbols always a part of different languages, for example, in English and Hindi language. In this use of a full stop, hyphen, commas, punctuations, etc. part of signs and symbols. Therefore, emoticons, emojis, stickers, and gif replaced the words and sentence in interaction and became new patterns of language that called “hybrid type patterns”.
- Various abbreviations form and words, for example, 2day, gnt, luv, kk, lol, etc. also found that people using during messaging and chatting. It was found that nowadays, it is used in informal communication frequently. It also found that now it frequently used by people in place of full words and sentences and becomes a new and stylish pattern for communication. Some study refers to it as “techlingo”.
- The hybrid pattern, for example, emoticons, emojis, stickers, gifs, etc. and techlingo means various textisms (abbreviations) are the generation text and communicate only on technology-mediated platforms. It was found that now is mostly used in informal communication, not in formal.

-
- It was found that digital nonverbal cues and abbreviation forms affect the growing student's literacy level and create a spelling mistake problem in an individual if they unintentionally used it. Frequent use of symbols and abbreviations can develop learning disabilities in individuals, which affects our reading and writing habit.

7.10 Sentiment and Semantic Analysis

The researcher has conducted the sentiment and semantic analysis to know the interpretation of emojis by users. To understand it, all emojis, of the same emotions, render the same meaning for everyone or not. For each emoji rendering, the researcher has taken a three-sentiment parameter. All parameters developed on the basis of observations and the help of emojiopedia. Emojiopedia is a website and dictionary for emoji renderings. To examine the variation of interpretation for emoji renderings, it compared with the emojiopedia. The average also calculated to know the variance in sentiment parameter in emoji rendering.

The emoji  (smiling face with smiling eyes), rendering the sentiment of “genuine happiness” “warm” and positive feeling”. For this emoji, 85% of participants interpret the sentiment of emojis as “To express Genuine Happiness”, and 5 to 10% participate taken it other meaning. The structure of emoji design is similar across all active platforms, but on the apple platform name of emoji not similar to other platforms.  (Smiling face with heart eyes) rendering the sentiment of “enthusiastic feeling of love, infatuation, and adoration”, e.g., “I love with this person or things”. For this emoji, 85.5% of participants interpret the sentiment of emoji as “I Like or Love this things or person”, and 14.5% of participants taken it as other meaning. The structure of emoji design found variation in across all active platforms. The eyes shape of emoji at the platform Apple , Google, Samsung, whatsapp, LG, and HTC varies (eyes place the under of emoji face circle) from Microsoft, twitter, Facebook, and messenger (eyes touch emoji face circle). On Facebook mouth shape is bigger than other platforms, while on messenger emoji mouth shape smaller than facebook and HTC has () closed smile mouth emoji.

 (Folded Hand) is rendering the sentiment of “Please”, and “thank you” in Japanese. But sometimes indicate a sentiment of “Namaste” “Prayer”, and “High-five”. For this emoji, 45% of participants interpret the sentiment of emoji as “To

express Prayer/Namaste”, and 36.3% of participants taken it as the meaning for “To express Please and thank you”, while, 18.8% interpret it “To express High-five”. According to emojiopedia emoji semantic of 🙏 (Folded Hand) render “prayer”, and “high-five” which same as participant interpretation. The structure of emoji sentiment varies across platforms but majorly varies on messenger and HTC platforms. As emojiopedia is rendered the meaning of folded hand emoji for “prayer”. The proper meaning with sentiment only comes within messenger and HTC platform. Both platform interpretation of emojis (🙏, 🙏) sentiment same as emojiopedia, and two more platforms such as DOCOMO (🙏) who first invented the emoji, and Emojidex (🙏) also rendered the folded hand same as emojiopedia. But, other platforms' 🙏 (hand emojis) can be rendered wrong and for different emotions.

👌 (Ok hand) rendering the sentiment of “ I am okay” “Yes”, and “that’s correct/good”. For this emoji, 56.8% of participant interpret the sentiment of emoji as “To convey that's Good”, and 40.8% of the participant taken it as other meaning like “To convey I'm okay/Yes”, while only 2.5% interpret it as “ that’s correct”. Here is the semantic variation; according to emojiopedia, correct and good words are the same and indicate the same meaning, but most of the participants interpret the meaning of 👌 as “to convey that’s good only”. The structure of emoji sentiments varies on platforms apple, google, Microsoft, whatsapp, twitter than sumsung, facebook, messenger, LG, HTC. The variation in the figures, apple, google, Microsoft, whatsapp, twitter platform emojis have only two up fingers and sumsung, facebook, messenger, LG, HTC have three up fingers. The HTC 🤞 (Ok hand) emoji show the front side of the finger and circle of ok hand gesture.

❤️ (Red heart), a classic love heart symbol emoji renders the sentiment of “Expression of Love”. For this emoji, 85.3% of participants interpret the sentiment of emoji as “For Expression of Love”, and 14.8% of participants taken it as other meaning like “To convey affection and care” and “To express cordial love from a pure heart”. The structure of emoji sentiments does not vary across all active platforms. The researcher observed variation only in the color of emojis.

 (Bouquet), A brightly colored flowers generally depicted as a collection of pink and yellow flowers emoji renders the sentiment of “Expression of appreciation”, “love”, and “happiness”. For this emoji, 84.8% of participants interpret the sentiment of emoji as “To convey Congratulations/appreciation”, and 15.3% of participants taken it as other meanings like “To express Honor” and “For convey proposal of Love/happiness”. The structure of emoji design varies across all active platforms.  at apple and Samsung platform is same as emojipedia, whereas, at Google platform flower color, number of flowers varies, at Microsoft platform the direction of emoji straight, at whatsapp, twitter, facebook, LG, and HTC the flower is not as emojipedia, and at messenger and facebook flower direction also different than other platforms.

All the above variations in emojis across all platforms, sometimes miscommunicate the emotion and feelings of behind emojis, which individuals want to say.

Table 7.82: Cross-platform structural different emojis of same characters

Apple						
google						
Microsoft						
Samsung						
Whatsapp						
twitter						
Facebook						
messenger						
LG						
HTC						
Unicode	U+1F60A	U+1F60D	U+1F64F	U+1F44C	♥ U+2764 U+FE0F	U+1F490
Name difference across platforms	Blush Smiling face with squinting eyes(Apple)	Heart_eyes Smiling Face With Heart-Shaped Eyes (Apple)	Pray Hands Pressed Together	Ok_hand	Heart Red Heart (Apple)	Bouquet

All the above emojis character is the same according to their Unicode value, but by design, they all have little different across the platform. The researcher found that the little difference sometimes changes the sentiment and semantic meaning differently. According to human study 🙌 (person raising, both hands in celebration) also interpreted differently across platforms. The apple rendering 🙌 (person raising both hands in celebration) as “hand” and “for celebrate”, Google rendering 🙌 (person raising both hands in celebration) as “stop clap”, LG rendering 🙌 (person raising both hands in celebration) for the “praise hand”, Microsoft and Samsung rendering 🙌 (person raising both hands in celebration) raised hand as “exciting and happy”.

Adobe released in 2019, emojis trend report, providing some insight into with emojis and their association to sentiment and semantic meanings. The researcher is taken some mood from there, for the interpretation and compares it to emojiopedia in the context of their sentiment and semantic meaning. People to convey the expression of love used 😍 (Smiling Face With Heart-Eyes), 😘 (Face Blowing a Kiss), and ❤️ (red heart) emojis. The three emojis differ in semantic meaning. In other surveys, smiling face with heart-eyes renders the mean of “I love and like things”. Emojiopedia interpreted it, as “I love/am in love with this person. Whereas, a kiss blowing face is also interpreted as goodbye and goodnight. The three 😊 (Grinning Face with Smiling Eyes), 😊 (smiley face), 😊 (smiley face with smiley eyes) emojis renders the intensity and level of happiness. 😊 Smiley's face renders the gratitude and warm feeling according to emojiopedia. To convey the feeling of sadness people mostly used 😭 Crying face, 😭 loudly crying face and 😞 frowning face sentiments, here only 😞 frowning face properly convey the meaning of sadness. To communicate the disgust sentiments people using 🤢 vomiting, 🤢 nauseated and 😏 unamused face. The interpretation of unamused face varies differently among users because sometimes it uses to communicate irritations and negative emotions also. 😡 (angry face), 🤧 (face with steam from nose), and 🙄 (rolling eyes) sentiments used to convey the frustration, but sometimes it uses to convey the feelings like 🙄

disapproval and boredom, 🙄 pride, dominance and empowerment. Therefore, the sentiment and semantic meaning of emojis also vary by the receiver and sender understanding.

7.10.1 Emojis in Interpersonal Communication

"A picture is worth a thousand words" This is probably why people are sending messages to each other through emojis. Emojis are small images used for communicating via text messaging and social media. They are quick, colorful, and can lighten the mood (Myers, 2019). Emojis allow us to express that sentiment and tone, which are hard to communicate in text. However, emojis ' value might also be in its infinite meanings. Communication can be done through emojis without explicitly saying anything. It is playing the role of body language in text messaging. The ability to read a situation visually at once worsens the older we get. Perhaps that is why emojis are most popular among the youth. According to Louise Myers, 50% of the 18-29 years olds have used emojis. Nevertheless, 55% of people say the main reason they use emojis is that they are cute (Myers, 2019).

Emojis are used by 56.5% of Instagram accounts. The analysis shows that in the posts containing at least one emoji receive 47.7 percent more average interactions per post. This shows clearly that emojis are not just a fun decoration, but also a way to engage your audience better. Myers (2019) found that if three or four emojis able to say which we want to communicate, then why we do use the word (Myer, 2019). The following examples show the emojis communication:

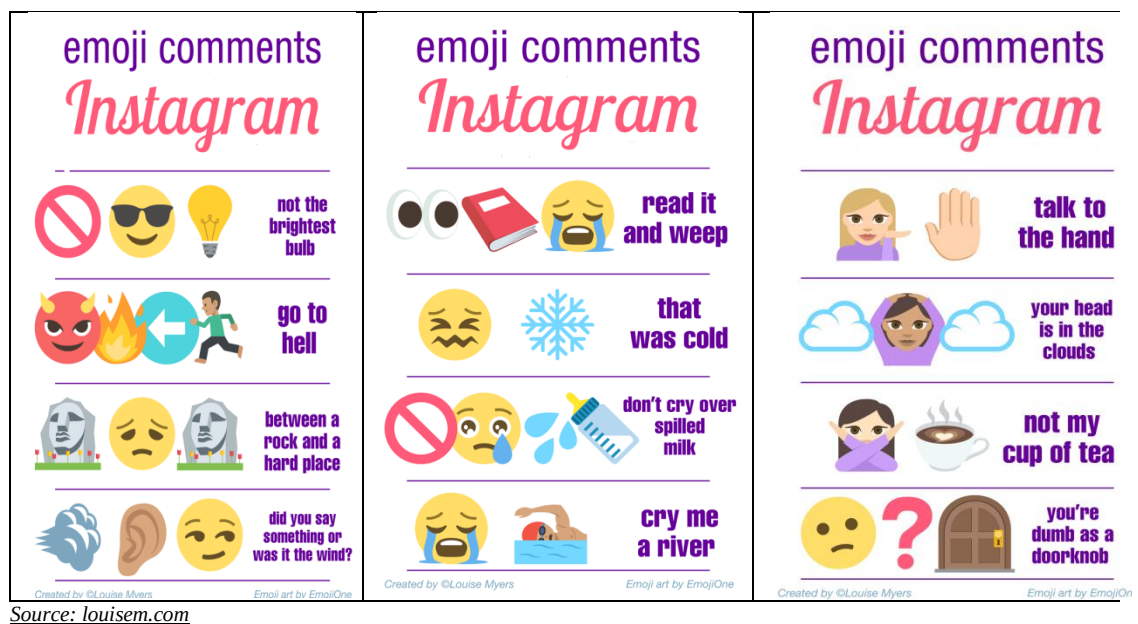


Figure 7.72: Examples of emojis used in place of sentences

The researcher found that when two or more people use the same emoji for communication, they may interpret their emotions and meanings differently. It also found that platforms also vary the interpretation, which changes the sentiment and semantic meaning of emojis. In other words, sometimes, there is a possibility of communication going wrong even within the platform.

In-text communication, emojis have become very popular, but researchers showed through sentiment and semantic analysis that people do not understand them in the same way. Emojis can have different expressions and meanings depending on users' understanding. Even the separation of the device and platform changes the sense and meaning of the emojis, causing a miscommunication.

To support this result, the researcher ties and makes a discussion of their study with Clark's psycholinguistic theory of communication. Clark's given an example if "A sends an emoji to B, she intends a particular meaning, B views the emoji, he construes or interprets the emoji, what he thinks it means. If B interpretation differs from A intended meaning, then B misconstrued A communication"(Clark's, 1996). Based on the above example, the researcher sentiment and semantic analysis suggest that people often interpret emojis according to their understanding in different meanings, same situations like that A and B.

The result of the sentiment and semantic analysis of this study is based on Clark's example. People often interpret the meaning of emojis according to their understanding and in different meanings, like A and B. The researcher sees in the results that this applies in its simplest form to emoji usage within-platform communication where the sender and receiver see in their exchange the same rendering.

However, communicating across platforms increases the possibility of misconstrual. Clark discusses the cognition behind how people internalize transmitted information in more depth. One way is through common personal experiences and common perceptual experiences. One way is by joint personal experiences, which are interpreted as a common perception of the natural signs of things and by joint actions (Clark's, 1996). Use of emoji comes within both: it also require perceptive interpretation to derive meaning, as well as the aim to communicate meaning. Clarke suggests that people should respond to the same kind of things or look at them in

order for a perceptual experience to be generally understood, and make sure they did so correctly. In contrast to a plain text where people in their exchange view the same characters, platforms effectively translate emoji, the emoji selected by senders is translated into the rendering of the receiver platform (Clark's, 1996). In fact, the results show that the interpretations of people for a particular emoji nature vary more in multiple platform renditions than for the presentation of a single platform. This means that communication between platforms is even more likely than within the platform to be misconstructive.

7.10.1.1 Delimitation of sentiment and semantic analysis

About 18 Smiley face and 2 emojis symbols have studied randomly by the researcher for their sentiment and semantics analysis. In the current Unicode consortium standard, according to emojiopedia, there are currently (2019) 3,178 more emojis characters. Similarly, the researcher studied 10 of the most active platform vendors, but there are still at least 17 vendors with their own unique emojis renderings (emojiopedia). In addition, researchers examined only a single version of each emojis platform people even though the operating systems and applications do not consistently use the same version.

7.10.2 The 100 most popular Emojis

“Curalate” website surveyed to find out the most popular emojis. The survey found 100 most popular emojis, which is most and frequently used for communication on social networking sites (Instagram). The all 100 used emojis deeply related to individuals' emotions and sentiment. In addition, researcher has found that some emojis have a few similar features. The same feature sometime misconduct the individual's emotion and sentiments which they want to communicate. The following most popular emojis used by individuals to share their emotions and sentiments:

Table 7.83: Examples of 100 most popular Emojis

S. no.	Emojis	Name of Emojis	Number of time used in one month
1		Red Heart	575,381
2		Smiling face with Heart- eyes	321,684
3		Face Blowing a Kiss	185,186
4		Face With Tears of Joy	185,060

5		Smiling Face	167,031
6		Smiling Face With Sunglasses	118,763
7		Two Hearts	117,492
8		Winking Face	93,052
9		Kiss mark	90,772
10		Thumbs Up	89,683
11		Hundred point	82,509
12		OK Hand	79,997
13		Grimacing Face	74,557
14		Victory Hand	73,727
15		Winking Face With Tongue	71,180
16		Face Savouring Delicious Food	64,916
17		Purple Heart	63,705
18		Smiling face with open mouth	62,069
19		Sparkling Heart	60,021
20		Dog Face	57,724
21		Flexed Biceps	55,299
22		Purple Heart	52,777
23		See-No-Evil Monkey	50,706
24		Hibiscus	46,934
25		Grinning face	45,727
26		Folded Hands	43,974
27		Growing Heart	41,601
28		Crown	41,143
29		Grinning Face With Smiling Eyes/Smiling face with open mouth and smiling eyes	40,324
30		Camera	39,454
31		Rose	39,151
32		Revolving Hearts	38,786
33		Smirking Face	37,962
34		Smiling face	36,515
35		Grinning Squinting Face/ smiling face with open mouth and closed eyes	35,712
36		Sun With Face	35,317
37		Women Holding Hands	32,355
38		Loudly Crying Face	31,859
39		Squinting Face With Tongue/ Face with stuck-out tongue and closed eyes	31,747
40		fire	29,577

41		Broken Heart	29,206
42		Smiling Cat With Heart-Eyes	28,144
43		Eyes	28,050
44		Sad/disappointed but Relieved Face	27,437
45		Raising Hands	27,374
46		Pensive Face	27,334
47		Musical Notes	26,129
48		Smiling Face With Halo	24,809
49		Clinking Beer Mugs	24,659
50		Smiling face with horns	24,652
51		Green Heart	24,553
52		TOP Arrow	24,378
53		Women With Bunny Ears	24,159
54		Yellow Heart	22,860
55		Gem Stone	22,846
56		Party Popper	22,718
57		Ribbon	22,420
58		Oncoming Fist	22,309
59		My Malaysia	22,303
60		Sleeping Face	22,248
61		Nail Polish	21,056
62		Cat face	21,022
63		Beating Heart	20,586
64		Birthday Cake	20,451
65		Heart With Arrow	20,334
66		Face Screaming In Fear	20,196
67		Speak-No-Evil Monkey	19,842
68		Kissing Face With Closed Eyes	19,476
69		Man And Woman Holding Hands	18,850
70		Grinning Face With Sweat/smiling face with open mouth and cold sweat	18,650
71		Unamused Face	18,542

72		Fork And Knife	18,463
73		Water wave	18,067
74		Woman Dancing	17,993
75		Strawberry	17,726
76		Relieved Face	17,689
77		Sparkle	17,631
78		Face With Tongue	17,548
79		Couple With Heart	17,489
80		Kissing Face	17,339
81		Heart Decoration	17,218
82		Kiss	17,058
83		Rabbit Face	16,527
84		Palm Tree	16,212
85		Bouquet	16,026
86		Clapping Hands	16,012
87		Beer Mug	15,963
88		Hibiscus	15,555
89		Woman Tipping Hand	15,245
90		Wine Glass	15,040
91		Pile Of Poo	14,847
92		Pizza	14,806
93		Tulip	14,733
94		Skull	14,713
95		Lipstick	14,507
96		Flushed Face	14,505
97		Gun	13,764
98		Soft Ice Cream	13,287
99		Tongue Weary Face	13,267
100		Weary face	13,159

Source: <https://blog.hubspot.com/marketing/instagram-emojis-infographic>

7.10.3 Top 10 emojis most used for communication

The above table shows the 100 most popular emojis from the different categories that are most used by people within one month. Emojipedia conducts a survey on emojis every year to find out the most used and popular emojis. According to emojipedia, the following are the most frequently used and popular emojis. It is also the top 10 most used emojis:

1. Face with tears of joy

A yellow face with a large grin, eyebrows raised and eyes are sparkling, each shedding a tear from laughing so hard. The emoji sentiment face with tears of joy carried the top position in this year. This uses almost every nearly situation. For example, I just locked myself out!, I heard a big joke! etc. It cannot only signify traditional humor with laughter; it can literally help us to laugh at anything.

It is one of the ten most popular emojis between 2014 to 2019. This emoji also chose by oxford dictionaries in 2015 “word of the year”.  Cat face with tears of joy is a variant of .

2. Red Heart

The most prominent symbol of love, the heart emoji, is in at number 2. It displays in different shades of red on most of the platforms.

3. Smiling Face With Heart-Eyes

A yellow face with an open smile, showing teeth at times, and eye-catching red cartoon-styled hearts. In the top 10, heart eyes kick off a whole string of love-themed emojis. It often conveys enthusiastic sentiments of love, infatuation, and praise. The most common words to appear alongside this emoji are "Beautiful" and "Cute."  Smiling cat face with Heart-Eyes is a variant of .

4. Rolling on the Floor Laughing

A yellow face with a large smile, X-shaped and rolling eyes turned as if on the floor, smiling. It uses to often communicates Hysterical laughter during the conversation.

5. **Smiling Face with Smiling Eyes**

A yellow face with smiling eyes. Rosy cheeks with a wide, closed smile. The bubbling smiley face is a great way to welcome or say that you feel loved, or maybe you are both pleased and warm to tell people. It is popular to use in the text when talking about good times and birthdays.

6. **Folded hand**

In Japanese culture, two hands are placed firmly together, meaning please or thank you. It used to convey the “prayer” and “ Namaste” also. All common words associated with it are "love," "good," and "family," and it is often used to express gratitude.

7. **Two Hearts**

Two love hearts in pink color. One, which is larger than the other. It can be used to show 'love is in the air'. "Happy" is the most frequently used word associated with double heart emoji.

8. **Loudly Crying Face**

Yellow face with a wailing open mouth and heavy tears from closed eyes. It has Use to express discomfort, emotions such as uncontrollable laughter, and extreme happiness.

9. **Face Blowing a Kiss**

A yellow face is waving with a kiss blowing with puckered lips depicted as a small, red heart. May represent a good-bye kiss or good night and more generally convey feelings of love and affection.

10. **Thumbs Up**

A gesture with thumbs-up is used to indicate the approval, to say ok and good.

7.10.4 Some facts of World Emojis day

The Jeremy Burge of emojiopedia founded the world emojis day on 17 July 2014. On world emojis day typically, more than 100 tweets are sent per minute on the # WorldEmojiDay hashtag. Over 3.5 billion Twitter impressions came in 2018 from the # WorldEmojiDayhashtag. In 2018, more than 150,000 Twitter accounts linked using the hashtag on # WorldEmojiDay. More than 190,000 Twitter accounts joined the group in 2019, which sent over 300,000 tweets. More than 4 billion Twitter impressions were generated by # WorldEmojiDay in 2019.

According to Social media emojis statistics, on Facebook, the Red Heart emoji are using two times more than last year. More than 900 million emojis are sent on Facebook Messenger every day without any text. Every day, more than 700 million emojis are used in Facebook posts. New Year's Eve is the largest emoji day for Messenger because that day, people use more emoji than other days. Twitter's most commonly used emoji is "Face With Tears of Joy." Fifty-seven percent of Twitter emoji users are female. By mid-2015, half of all Instagram comments contained emojis.

Eighty percent of people use emoji in communication, according to a recent Privilege Insurance study. More than 200 new emojis were launched in 2019, including changes in this figure. New emojis coming in 2019 included a sloth, flamingos, yogurt face, and butter. The emoji "Face with Tears of Joy" remains a Twitter favorite. In fact, according to Emojitracker, it is the most popular emoji on every platform, with more than 2,000,000,000 (two billion) uses. Facebook's most popular emojis include favorites such as ' Face With Tears of Joy ' and ' Smiling Face with Heart Eyes, ' but also the ' Birthday Cake ' emoji — Facebook reminds you about all those birthday greetings. The peach emoji is used as a fruit by only 7 percent of people; the majority either use it as a butt or for other non-fruit use. The winners of the 2019 World Emoji Awards were goes to:

- 1)  (Smiling Face with Hearts)
- 2)  (Pleading Face)
- 3)  (Woozy Face)

In addition, the winner of the 2018 World Emoji Awards were

Best New Emoji: 🤯 (Exploding Head)

Most Anticipated Emoji: 🥍 (Lacrosse Stick and Ball)

Excellence in Emoji Use: Snoop Dogg

Emoji of the Year: 🤔 (Thinking Face)

Emoji are used in digital communication alongside the text, but their visual character leaves them open to interpretation. In addition, on different platforms, emojis may be presented differently to people rendering one platform differently from another platform. In order to avoid communication challenges, psycholinguist theory suggests that interpreting should be consistent between two persons. In this study, the researcher examined the use of emojis in place of words and sentences, the consistent interpretation of it, and the consistent interpretation of renderings on different platforms.

7.11 Analysis of Textisms

For the analysis of textisms, the researcher has adopted descriptive techniques. These include the analysis of content, words, and sentences. The Researcher has used dictionaries, similar studies, chat rooms and reference materials for analysis. The analysis of data is mainly the language of text and is based on qualitative in nature. For this study, the researcher has taken few English language aspects to analyze the textisms during interpersonal communication. English words (data) have been randomly selected from related studies, text messaging, and instant messaging.

7.11.1 Phonology

Phonology is a study of sound patterns in a language and in different languages. It is a study of the hierarchical structure of language sounds. Phonology is related to many disciplines such as psycholinguistics, cognitive science, sociolinguistics, and acquisition of language. Phonology is related to the abstract. In phonology, the phoneme inventory includes all productions of the same sound, so

even if each 'p' is produced slightly different every time, it is the same sound (Szczegielniak, 2013)

Phonology principles can also be applied to speech pathology and technological innovations. Systems can be used to translate spoken data into text in terms of speech recognition. Computers use the language in this way, as do our brains. The same process occurs in the human mind when language is produced and received in machines. The following table has shown the analysis of the formation of phonology in the context of textisms words of texting:

Table 7.84: Example of Phonology and analysis process

English words	Textisms	Process	Aspect/patterns
Tomorrow	2moro	Number, sound abbreviation. In the word Tomorrow '2moro', there is a deletion of the letters 'T,o, and r, and the use of the number instead of To, and '2moro' based on the sound of its pronunciation.	Phonology
That	TH@	spoken, symbol feature. In the word That 'TH@', there is deletion 'a 't', also there is using of symbol@.	Phonology
Chocolate	Chocl8	Abbreviation, number, sound feature. the word chocolate 'chocl8' there is deletion of vowels 'o', and the number 8 instead of 'ate' as sound feature.	Phonology
Because	B/C,CUZ,C OZ,BCOZ	Shortening, syllabus abbreviation, spoken feature. In Because ,there are four ways of writing in textism 'B/C' here there is abbreviation of the two syllabus by two letters, but in 'CUZ' syllabus 'Be' and deletion of 'a,u,s,e' in the second syllabus and used letter 'z' its sound feature. In 'COZ' there is deletion of the first syllabus 'Be' and deletion of 'a,u,s,e' and using the letters 'o,z' instead. In 'BCOZ', there is deletion of 'e,a,us,e' and using of 'o,z' instead. It's sound feature.	Phonology
Are	r	Abbreviation, sound feature. In Are 'R', here there is deletion of 'a,e' and using the letter R as spoken feature.	Phonology
You	u	Spoken feature. In You 'U', there is deletion of 'y,o' and here it's spoken feature.	Phonology
The	da	Spoken feature. In the word The 'DA' there is deletion of letters 't, h, a' and using of DA instead as sound feature.	Phonology

All textisms words are phonology in nature and based on their own sound of pronunciation. In the word tomorrow, numerical 2 replaced the first two alphabets 't, o' because of the same sound. In the word 'That', the last two alphabets 'a, t' replaced by the special character '@' based on its same sound, which made the new and stylish word 'th@.' The textisms word 'Chocl8' follows the abbreviation, number, and sound feature. Numerical '8' replaced the alphabets 'a, t, e' as sound feature. In the word because, there are four types of textisms words 'B/C, CUZ, COZ, BCOZ' that follows the Shortening, abbreviation, spoken feature.

B/C is the abbreviation of it (because), 'CUZ' is based on abbreviation and spoken features. Here 'Z' replaced the letters 'a,u,s,e', and as the same follow the textisms word 'COZ', here, 'OZ' replaced the letters 'a, u, s, e'. The word 'are' has an abbreviation and sound feature. Textisms word 'r' replaced the letters 'a, e' based on their spoken feature. Besides of this, textisms words 'u' and 'da' based on only spoken features and replaced the letters 'y, o, t, h, e'.

7.11.2 Morphology

Morphology is the study, forming, and relationship of words in a single language. The structure of words and parts like stems, root words, prefixes, and suffixes is analyzed. Formal differences between words serve a variety of purposes, from the creation of new lexical objects to grammatical structure indication. Morphology examines parts of speech, intonation, and stress, and also considers how context can modify the pronunciation of a word and its meaning. Morphology is traditionally divided into several types depending on the role of a given formation in grammar. The fundamental division between word-forming and inflection is: the latter is easy enough to characterize as morphology creating new words, but it is harder to define inflection (Anderson, & Anderson, 1992).

In the area of linguistics, morphology is the subject of studying the distribution and shape of "morphemes," which is the minimal combination of word and sentence language. A split or decomposition into smaller units of words and phrases seems relatively intuitive, and linguistic morphologists questioned repeatedly the fundamental assumptions of morphemes. In a single way, morphology is about the form of words, but does not consist of a sequence of morphemes, rather than the distribution and pronunciation of small parts of language. This approach claims that languages distinguish strictly between words and phrases, with only the latter having an internal organization of structures (Matthews, 1965). The following table has

shown the analysis of the formation of Morphology in the context of textisms words of texting:

Table 7.85: Example of Morphology and analysis process

English words	Textisms	Process	Aspect/pattern
Oh my god ,gosh	OMG	Acronym. Oh my god, gosh ‘OMG’, here is abbreviation or acronym, the first letter of each word.	Morphology
Boy friend	BF	Acronym. In the Boy Friend ‘BF’, there is abbreviation for the first letter for each word, which is written in capital	Morphology
good morning, Good night	GM, GN	Lexical Deviation. The compound word good morning ‘GM’ there is lexical deviation. The first letter of each word is written instead. In the compound word Good night ‘GN’ also it is lexical deviation, the first letter of each word is written but in capital like ‘G’ for ‘Good’ and ‘M’ for ‘morning’.	Morphology
Talk to you later	TTYL	Clipping. In the verb phrase talk to you later ‘TTYL’ the first letter of each word is written in capital in textismit is clipping.	Morphology
Ok	KK	Acronym. In the OK ‘KK’ there is deletion of letter O and double of the letter K to mention the stress syllabus.	Morphology
See You any time, any place ,any where	CUA3	Lexical Deviation. In See You any time, any place, anywhere ‘CUA3’, see is written C as sound feature and the same for You U, and capital A for any and using the number 3 to refer to any time, any place and anywhere.	Morphology

All the text words in the above table are examples of morphology in nature. The textisms word 'OMG' based on abbreviation or acronym of the word ‘Oh my god, gosh’ means the first letter of each word and deletion of last all letters of each word such as ‘h, y, od, osh’. Textisms word ‘BF’ also made with acronym and abbreviation of ‘boyfriend’ means the process of creation of this lexical same as ‘OMG’. The compound word good morning and a good night is based on the lexical deviation process. In textisms words ‘GM’ and ‘GN’, there is a lexical deviation, means the first letter of each word is written instead of full words and all first letter written in capital. The textisms word ‘TTYL’ is based on the clipping and abbreviation feature of ‘Talk to you later’. In this, all first letter of each word is written in the capital only.

The textisms ‘KK’ are based on the acronym feature. In the word ‘OK’, deletion of letter ‘O’ and double of the letter ‘K’ to mention the stress syllabus. Textisms words ‘CUA3’ is based on the feature of Lexical Deviation. The sentence ‘See You any time, any place, anywhere’, see is written ‘C’ as a sound feature and the

same for ‘You’ as ‘U’, and capital ‘A’ for ‘any’ and using the number ‘3’ to refer ‘to any time, any place and anywhere’.

7.11.3 Syntax

Syntax in linguistics refers to the rules governing the combination of sentences, clauses and phrases. Syntax is a Greek word, which means arrange together. The term is also used to study a language's syntactic characteristics. The term refers to the correct ordering of symbols and codes in the computer contexts, to allow the computer to understand the instructions. In a single sentence or phrase, syntax is the correct order of words. These surface differences in most generative syntax theories arise out of a more complex clausal sentence structure and each order can be consistent with multiple derivatives. The following table has shown the analysis of the formation of Syntax in the context of textisms words of textin

Table 7.86: Example of Syntax and analysis process

English wordS	Textisms	Process	Aspect/pattern
Thank you very much	TYVM	Abbreviation. In Thank You very much ‘TYVM’, the first letter of each word written in capital	Syntax
Good to go	GTG	Abbreviation. In Good to Go ‘GTG’, the first letter of each word but in capital letter. The same abbreviation ‘GTG’ can be used for Go to go which makes confusion.	Syntax
Bye for now	B4N	Abbreviation. In Bye For Now ‘B4N’, we notice the abbreviation for Bye and capital B for Bye, using capital N for now but using the number4 to indicate for.	Syntax
Don’t Believe Everything you Read	DBEYR	Abbreviation. In Don’t Believe Everything you Read ‘DBEYR’, the same thing of using the capital for the first letter of the word.	Syntax
On The Other Hand	OTOH	Abbreviation. In On The Other Hand ,’OTOH’, here the abbreviation is the first letter of each word.	Syntax
With	W	abbreviation	Syntax

All the textisms words in the table above are examples of Syntax in nature. The process of constructing the textisms word 'TYVM' based on the abbreviation features of the sentence ‘Thank you very much’. In this sentence, only the letters of the first word are written in the capital, but in the text word, the first letter of each

word is written in the capital and expresses the same meaning. The same procedure applies to the sentence 'Good to go'. The words 'to' and 'go' are written in small letters. However, during textisms, all the initial words can be written in the capital.

In the textisms of the word 'B4N', it can be noticed that the process of formulation of this word is based on the alphanumeric abbreviation attribute. For this, capital 'B' is used for 'Bye', capital 'N' for 'now', and the numerical '4' has been used to indicate the word 'for'. The sentence 'Do not believe everything you read' is based on the abbreviation attribute. It is necessary to note in this sentence that all the words are in the first letter of capital, so the process of designing the textisms word 'DBEYR' is the same as using capital for the first letter of the word. The sentence follows 'On The Other Hand' is also based on the abbreviation attribute and follows the same process of the previous sentence. Therefore, textisms word for this is 'OTOH.'

7.11.4 Chatting speech

It is agreeable that the syntax has a significant influence. The abbreviated style of short text during communication disregards the English text rules. There are certain words in the text messages related to chat talk, which is particularly related to the computer and mobile phone chats.

Table 7.87: Example of Chatting speech and analysis process

English words	Textisms	Process	Aspect/pattern
Alt Control Delete	a c d	Acronym word. . In alt control delete, 'a c d', here the abbreviation is the first letter of each word.	Chatting speech
Open Mouth ,Insert key board	O m i k	Acronym word. In Open Mouth ,Insert key board 'omik', the first letter of words written in capital and other written in small letter.	Chatting speech
Back On Topic	BOT	Acronym word. In Back on Topic 'BOT', the same thing of using the capital for the first letter of the word.	Chatting speech
Text To Speech	TTS	Acronym word. Abbreviation. In Text To Speech 'TTS', the first letter of each word has taken in capital letter.	Chatting speech
Keep In Touch	KIT	Acronym word. In Keep In Touch, 'KIT', here the abbreviation is the first letter of each word.	Chatting speech
Hit Me Up	Hmu	Acronym word. It means text me, phone me. In Hit Me Up 'Hmu', the first letter of word has taken in capital letter and other words in small letter.	Chatting speech

The table above has some chat speeches, such as 'Alt Control Delete', 'a c d,' which is an abbreviated form, which means delete all negative things. The process of composing the text is based on the 'c a d' sentence word system 'Delete Alt Control'. Include the 'a c d' abbreviation in the keyboard, where the first letter of each word is used. In the textisms of the word 'Omik', the full sentence is 'Open Mouth, Insert keyboard', in which it can be noted that the process of the construction of this word is based on the word system. Each word is based on using the first letter, with the first letter in capital, and all the other letters are in lowercase. It gives a message to come online and chat. The sentence 'Back on Topic' is based on the Acronym word system. In this sentence, it is necessary to note that all words are in the first letter capital, so the process of forming the textisms word 'BOT' is the same as using capital for the first letter of the word. It gives a message to return to the subject.

The sentences 'Text to Speech' and 'Keep in Touch' are also based on the Acronym word system and follow the same procedure as in the previous sentence. Hence, the text words for this are 'TTS' and 'KIT'. TTS can be used to 'message me' and 'chat with me'. 'KIT' can be used to advise talking regularly with favorite people. The sentence 'Hit Me Up' is based on the Acronym word system. It is necessary to note in this sentence that the first letter is in the capital, and the others are in a lowercase letter. Hence, the process of recitation is the word 'Hmu'. It is used to make 'contact with me'.

There is no fixed word order in text messages as the syntax, as in normal syntactic English structure. Furthermore, pronouns are substituted. The text does not usually care about grammatical rules in English. In morphology, the internal word structure, many processes such as mixing and acronyms damage words completely. In the sphere of phonology, the vowel letters that influence pronunciation are omitted. Furthermore, the last vowel letter is omitted. In semantics, there is a complete desire to punctuation, to use symbols, signs, pictures, and numbers, which is confusing. The use of abbreviations leads to differing understandings of single words because the rules for abbreviating abbreviations are not agreed. This can lead to ambiguities and it is possible that the reader could not imagine the meaning. The meaning is thus determined by the purpose of the text unless the sender and the recipient agree to the meaning intended.

Abbreviations used in text messaging are incorrect but communicatively acceptable in linguistic terms. Texting spreads the language of text messaging through

poetry. Texting knowledge can help improve the language through the addition of a new communication channel. The use of colors, bold letters, capitalization and letter repeating, in one word, shows that words are stressing or important. Furthermore, numbers and symbols are overused for short-term use in text messages. Misspelling and textisms or textualism of people which may linguistically affect the correct spelling of the English word.

7.12 Chapter Summary

This chapter includes the analysis and interpretation of quantitative and qualitative data that has been collected from the field, in-depth interviews and related content of research studies. This chapter explored the views and opinions of the respondents through tables and graphical presentations of the data. This chapter provides a detailed description of the views and opinions of experts in this research study. In the last of this chapter focused on the detailed content analysis of this research study. Sentiment and semantic analysis of various communicative symbols and different aspects of the English language such as phonology, morphology, syntax, etc. of text communication has been discussed in this chapter.

CHAPTER EIGHT

Findings and Recommendations

8.1 Introduction

This chapter sheds light on the findings, recommendations, and future extensions of the research study. This chapter has also focused on the delimitations and limitations of the study. The uses of the Internet, social networking sites, and mobile phones have become a ubiquitous element of interpersonal communication. In this study, the researcher found several new findings. The study's findings relate to the use of ICT for interpersonal communication in various ways. It is based on the type of communication that focuses on information and communication technologies and the reason for its use. It also deals with the use, forms and function of digital non-verbal cues, construction of Textisms (abbreviations), and the effects of ICT on the behaviors of individuals. The study revealed the following findings.

8.2 Survey-Based Findings

For this study, a total of $n = 400$ respondents were surveyed by the researcher for data collection. Close-ended and open-ended questions were asked to the respondents, which were concerning the research problem, on *“Uses and Effects of Information and Communication Technologies in Interpersonal Communication: A Study in Delhi”*. In this study, the researcher found that out of the total respondents, a large proportion of the respondents are in the age group of 18-24 years. It was found that the majority of the respondent male, .i.e. 64 percent participated in this survey compared to females. The study is based on higher education, so it was found that majority of the respondents from undergraduate and postgraduate students participated in this survey. It is observed by the researcher that central universities is having more students as compare to state universities or any other Universities / Institutions. In addition, it was also found that the majority of the respondents who participated in this survey stayed with friends and roommates. Based on the data, the researcher made the following conclusions. The findings based on the following objectives and Hypotheses:

Objective 1: To study the role of ICTs (various tools and techniques) in maintaining interpersonal communication among respondents

Objective 2: To study the uses and effects of ICTs in the context of interpersonal and face-to-face communication

Hypothesis 1: Information and communication technologies play a role to maintain interpersonal communication

In this study, the researcher has found that most of the respondents are using ICTs (TMC) to maintain different relationships rather than face-to-face communication. Data says that WhatsApp is the most frequently used social apps in a daily communication compare to other social apps such as WeChat, LinkedIn, Google+ Snapchat, etc. The data found that twitter is often used for received and sent social information in a day basis among other blogs. Data says that Facebook is the most used social media platform to interact, post, comment, and share informal and formal information on a daily basis, among others. The data also says that Instagram is the second most used social media platform to interact, post, comment, and share information.

Data suggested that majority of respondents *agreed* that information and communication technologies made interpersonal communication easy, affordable, and fit the budget. The research has found that the majority of respondents *neither agree or disagree* that information and communication technologies safe and secure for personal and professional communication. On the statement that information and communication technologies made shy and unconfident people more open and frank, or we can say it has provided the way and opportunities of communication to that type of person, most of the respondents answered *agreed* on this statement.

The research has found that the majority of the respondents *agreed* on that information and communication technologies break social interaction; it made people isolated and kept away from society in the real world, but in the virtual world, it made people more interactive and more socialize. Besides, data says that an overwhelming majority of respondents *agreed on* that information and communication technologies do not convey all emotions, feelings, and expressions equal to face-to-face communication.

The result found that information and communication technologies made our relationship smooth, improved, and strengthened. The data says that majority of the respondents *agreed* on that the technology-mediated virtual world, where all social networking sites, internet, and different websites are the medium to interact, maintain social status and give the chance to be a part of different activities and issues. The research found that on the basis of collected data, that social networking sites have facilitated people for communication, give a chance to make their view, provide a

virtual world for socialization, keep updated with trendy information, and gave a platform to learn. It is also found that social networking sites are making people more confidence.

The data says that majority of respondents *agreed* that information and communication technologies help to release stress because when someone posts the stressor and feels demotivated, friends and family post comforting comments, which make them feel good. Besides, the research has found that the majority of respondents *agreed* that the internet and social networking site is the platform, which provides us a chance to be a part of current and burning issues/movement. In addition, most of the respondents answered agreed on the statement that Technology-mediated communication is replacing face-to-face communication. It found that majority of respondents agreed that technology-mediated communication had saved money and time, while face-to-face communication consuming more time and expense.

Data says that majority of respondents *agreed* that information and communication technologies provide us another life and society for social interaction that is a virtual world where we can interact globally. Data says that majority of the respondents agreed on the statement that the individuals feel neglected when he/she is with those friends, relatives, colleagues, etc who are busy with their phone and laptop during the conversation. The research has found that majority of respondents agreed that individuals take less interest in face-to-face communication if they have their mobiles and laptops. Besides, data also reveals that the majority of respondents agreed that information and communication technologies provide facility to connect anytime and anywhere, to family, friends, colleagues, teachers, acquaintances, etc many times and around the world in a day.

Objective 3: To study the association between the use of digital Non-verbal cues in place of words and sentences and gender among the respondents

Hypothesis 2: Individuals frequently use digital Non-verbal cues in place of words and sentences

The research has found that majority of the respondents know about the emoticons and emojis 😊 and use it for communication purposes. Data says that majority of the respondents first time have seen emoticons and emojis 🤔 on Whatsapp. It found that majority of the respondents mostly use emoticons and emojis

 for informal communication. Data says that majority of respondents frequently and regularly use whatsapp for emoticons and emojis   based communication.

The researcher has found that majority of respondents *agreed* that emoticons and emojis  make texting easier than words. While analyzing and interpreting the statement that emoticons and emojis  make text attractive, the study suggested that majority of the respondents said *agreed* that emoticons and emojis  make text attractive, and it also found that sometimes images stimulate chatting or interaction. The majority of respondents agreed with the statement that emoticons and emojis  are making the text easier to understand. On the statement that emoticons and emojis  took less time to type than a word, sentences and save time during communication, most of the respondents answered *agreed* on this statement that it takes less time. On the other hand, majority of the respondents *disagreed* on that the people only use emoticons and emojis for entertainment. This suggests that most of the respondents use emojis for communication purposes.

One question was based on whether emojis  could convey the words or feelings behind the feelings of the individuals that they wish to express; most respondents *agreed* that emojis  are able to express the emotion behind the words or feelings of individuals. The research has found that most of the respondents *agreed* that sentiments icons  (emoticons and emojis) enhanced interest in the communication of the sender and receiver.

The data states that the overwhelming majority of respondents agreed that emoticons and emojis  are shortcut patterns of text communication. On the statements that emoticons and emojis  are difficult to type and understand than words, majority of respondents answered *disagreed*.

Based on collected data, research has found that majority of the respondents sent emojis  in text-based communication during the interaction. The data suggest that the majority of respondents *agreed* that they receive emojis   in text-based communication during conversations. On the statement that the emojis  and other symbols provide for the communication are sufficient or not, on this, most of the

respondents answered that *no*, there is still lot of emojis  are missing for proper communication. The data suggested that most of the respondents sometimes communicate only with emojis  . The results found that majority of the respondents said *yes* that to show the intensity of emotions (level of happiness, anger, excitement, etc.), people send many emojis   of the same emotion at a time.

This study found that most of the respondents use  emojis of smiling face with smiling eyes '*to express a genuine feeling of happiness*', which same as emojispedia meaning. Data suggested that most of the respondents use  emoji of smiling face with heart eyes for express '*I like or love this things or person*', which is the same as emojispedia also, which means there is only less difference to the interpretation of emojis meaning. The research has found that most of the respondents use  emoji of folded hands for '*prayer*' and '*Namaste*' purpose, which is the same as emojispedia meanings and interpretation. In some other Asian cultures and in Japanese culture, they used it to represent, '*please, thank you,*' and '*I am sorry*'. It is also found that some respondents uses folded hand emoji  'to express Please' and 'thank you', which is the same as Dictionary.com meaning and interpretation. Data says that most of the respondents use  ok hand emojis to convey the '*that's good*' during the conversation, comment, and post.

The study found that majorities of the respondents interpret the meaning of  red heart emojis as '*Expression of Love*' same as emojispedia interpretation. This also shows the meaning and interpretation of  red heart emoji. The data suggested that most of the respondents interpret the meaning of colorful flowers arranged emojis  as '*To convey Congratulations*'. It found that majorities of the respondents use  emoji of disappointed face to convey the sentences such as '*I am sad*' and '*feeling sad*'. It found that majorities of the respondents use  emoji of the face with a thermometer for the sentences "*I am not well and I am suffering from fever*" which also generally use to indicate that. The data suggested that the majority of the respondents use  emojis of a broken heart to replace the sentences "*my heart is broken, and my heart will break.*".

The researcher has found that most of the respondents use 🍴 emoji of face savoring food for the place of “*It’s very tasty*”, “*Yummy*”, “*Delicious*” etc. sentences. It found that the majority of the respondents use 👍 (Emoji of thumbs up) to convey the sentences and words “*I like it, ok, and agree*”, which generally use for it.

The study suggested that most of the respondents use 🤔 (Emoji of a face with furrowed eyebrows looking upwards with thumb and index finger resting on its chin) to say “*I am thinking and I am trying to understand*”. The data states that most of the respondents use 😴 🙌 (Emojis of face with eyes closed and mouth letting out three, cartoon - styled Zzz's overhead, and hand waving) to convey the sentences and words “*Feeling sleepy, bye and I just wake up, Hello*”, which also generally use for it. Based on primary data, the researcher found that people change words and sentences by emojis symbols during conversations. The following table shows that which emojis convey the same meaning of the words:

Table 8.1: Example of Emojis, which convey the meaning of words

Words	Emojis/symbols
Happy	😊 😄
Sad	😞 😭
Fun	😜 😏
Think	🤔
Angry	😡
Love	❤️ 😍
Miss	😘
Yummy	😊
Crying	😭
Ok	👍 🙌

Objective 4: To study the association between the use of Textisms in place of full words and sentences and gender of among the respondents

Hypothesis 3: Individuals frequently use various types of Textisms forms in place of full words and sentences

Hypothesis 4: Text messaging and chatting is more convenient rather than talking on the phone or face-to-face communication

The data suggested that the majority of respondents frequently and regularly use Whatsapp for texting, messaging, and chatting. Therefore, Whatsapp found frequently used platforms for text-based interpersonal communication. The researcher asked the respondents that much chatting and messaging is a good way to keep in touch with others, majority of respondents answered *agreed* that much chatting and messaging keep in touch with others.

The researcher asked questions to the respondents that texting and chatting are more convenient than talking on the phone; most of the respondents said *agreed* that texting and chatting are more convenient than talking on the phone. The data suggested that the overwhelming majority of respondents said *always* that they use abbreviations in their chatting and messaging during the interaction. This study found that the overwhelming majority of the respondents are using 26-50 percent of the abbreviation, phonetic, initialisms, alphanumericism, etc. words during chatting and messaging.

The researcher has found that most of the respondents answered that they always use abbreviations, phonetic, initialisms, alphanumericism, etc. and understood the meaning of abbreviations (textisms) during messaging and chatting. The data suggested that the use of abbreviations (Textisms) during messaging and chatting makes text easy and simple. Data says that respondents want to use abbreviations, it because it takes less time, and easily type, not because of forgetting of spelling of words and limitation of word space. A majority of respondents said that they use abbreviations because it is a stylish way to write any message. Data says that the use of symbols and abbreviations take less time as compare to full text during text communication. The research has found that most of the respondents said that during messaging and chatting, it is not necessary to follow grammar rules. The data suggests that most of the respondents said *agreed* that the internet and social networking sites are creating barriers for a talk on phone-based communication and face-to-face communication.

The study found on the basis of primary data people are using textisms instead of words. For example:

Today replaced by '2day',
Tonight replaced by '2nite',
good night replaced 'g9t',
great replaced by 'gr8t',
for is replaced by '4',
tomorrow is replaced '2morw',

what is replaced by 'wat',
Love is replaced by 'lob and luv',
you is replaced by 'u',
ok is replaced by 'kk',
you are is replaced by 'u r',
birthday replaced by 'bday',
Oh My God replaced by 'omg',
see you replaced by 'cu',
Laughing out a loud is replaced by 'lol'.

The study found that users spend an average of 31 minutes to 2 hours per day on formal and informal text-based communication. According to Statista 2017 and 2018 reports, the average time spent per day by users was 135 to 153 minutes, included the overall use of the Internet and social networking sites such as YouTube videos, movies, and games. However, for this study, the researcher has taken to the Internet and social networking sites only for the purpose of formal and informal interaction such as phone calls, messages, chatting, comments, posts, share photos, plan to make, etc.

8.3 Experts' interview and Content-Based Findings

Objective 5: To study the influence of information and communication technologies on individuals' behaviour

Hypothesis 5: Information and communication technologies are affecting individuals' behaviour

During the last ten years, the rapid development of social networking sites has created a new medium for human interaction but has also greatly influenced the behavior of individuals. According to Expert Mr. Amit Joshi, the Internet and Social networking are reduces loneliness and providing a virtual society for interaction where people have many options for interaction and other things. Whereas, according to expert Dr. Yatan Pal Singh Balhara, the internet and social networking sites are do not isolate the people. Even, it attaches the people with virtual society for social interaction.

The researcher has explored the following findings that affect the behavior of a person. These findings are based on the Experts views and Content analysis.

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1. In this study, the researcher found that ICTs (Internet and social networking sites) have completely changed the habit and behavior of individuals. The involvements of ICTs are increasing day by day. For example, now people like to do online shopping, online learning, and education; they update online news, events and other trending topics. Not only this, but individuals are also using ICTs to share photos, videos, updates etc. with friends, family and others. It is also used to plan with friends and social groups, interacting with celebrities, and making new friends.
 2. It has been found that, while ICTs have made our life and communication easier, economical, better and smooth, it also has some effects that affect individuals' behavior. It has also found that the Nature (positive and negative) of online interaction is a reason of the low mood that affects the behavior.
 3. Harmful online interactions have been found as a cause of worthlessness and hopeless feelings, which increase depression.
 4. The study found that frequent and regular use of social media is a type of psychiatric disease. This is a type of Internet addiction, which is like other drug addiction like drugs, narcotics etc.
 5. Kuss, D. and Griffiths, M. 2011, analyzed 43 previous studies and found that social media addiction is a mental health problem that requires professional treatment. They also found that excessive uses of social media created relationship problems, worse academic achievement and lack of interaction in offline communities (Kuss and Griffiths, 2011). Same as the researcher has also found that addiction to social media is a health problem.
 6. It has been found that frequent social media use is the reason for poor academic records, poor performance and poor interaction in society.
 7. Research has found that excessive use of social media is cause of lowers self-esteem in people. When people see and read posts, photos, comments about other people's enjoyment, achievement and their personal lives, they start comparing them to others. Which somewhere demolishes them?
 8. It was found that social media has a negative as well as a positive effect. Facebook and other social media make people aware. The positive activity of other people motivates other people. People's positive comments on negative posts reduce individuals' negativity.

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9. It has been found that indulging in betting, gambling, gaming, etc. on the Internet and social media increases the need for money, which is a cause's stress.
 10. The research found that too much involvement on social networking sites and the Internet is a cause being separated the individual from society. They stop interacting or mingling with friends and family members and always try to keep a distance.
 11. The study found that substance abuse and depression are common problems among frequent users of the Internet and social media. The overuse of social media and the internet is detaching people from the real world. This increases their lack of confidence in the real world.
 12. It was found that internet and social media are the reason behind sleeplessness and trouble in concentrating. On the basis of content study it has found that artificial light such as blue light; smartphones and laptop screens reside in the body's production of the hormone melatonin and link it with sleep disturbances.

8.4 General findings of the study

In this study, the researcher found basic general findings, which are based on the use of ICTs and its effects on formal and informal communication.

- It was found that ICTs are economical and very Easy to use.
- ICTs are making people more confident and comfortable in communication.
- Provides Smooth and improved communication to maintain personal relations.
- Respondents believe that social networking sites are maintaining their social interaction and activities.
- ICTs are providing platforms to share opinions.
- ICTs are save our time.
- ICTs are providing worldwide virtual societies to socialize.
- It (ICTs) makes comfort to talk to everybody anytime, anywhere.
- Maximum respondents were able to recognize the meaning of Non-verbal cues (emojis). Its shows that emojis & emoticons are having a different language, which is recognized by users. It shows that it is creating a new dimension of language.
- Maximum respondents frequently use emoticons and emojis for informal communication.

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- Whatsapp is the most popular platform to use Non-verbal cues.
 - Non-verbal cues are making texting easier than words and sentences, and it is making communication engaging, entertaining.
 - Respondents believe that use of non-verbal cues makes text easier to understand, which saves time also.
 - Respondents believe that non-verbal cues can express their feelings and emotions.
 - One can know about the interest of others through use of ICTs.
 - It (emoticons and emojis) can replace words and sentences which is comfortable for communication.
 - ICTs affect personal and professional relations.
 - Because of the attractive features of ICTs, people take less interest in face-to-face communication.
 - It was found that now people are ignoring talking on the phone because they use attractive and entertaining features of text communication e.i., emoticons, emojis, stickers, GIFs, etc.
 - Research has found that text communication is much easier and comfortable than talking on the phone because through text messaging, people can talk at their workplace in front of seniors, teachers, family etc., without any disturbance.
 - When we share our emotions and feeling through non-verbal cues, it affects our personal communication.
 - Non-verbal cues and Textisms affect verbal language and its grammar also.
 - People do not want to give much time for communication; they want quick and easy communication, which is affecting personal communication.
 - Available non-verbal cues are not enough for communication,
 - ICTs are not safe and secure but still in use.
 - Keeps people isolated and busy in their life which affect their personal and professional life (lives)
 - ICTs are affecting face-to-face communication.

8.5 Major Research findings of this study

The major findings on the research study “*Uses and effects of Information and Communication Technologies in Interpersonal Communication: A study in Delhi*” are:

1. The study found that, generally, technology-mediated all platforms are being used for interpersonal communication.

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2. Research has found that WhatsApp is the most commonly being used platform for informal communication.
 3. Research has found that Twitter is most frequently being used to get information on a daily basis.
 4. The study found that Facebook (Messenger) is the most frequently being used social media for interacting with posts and comments.
 5. Research has found that Instagram is most frequently being used to share, post, and comment on a daily basis.
 6. The study found that a technology-mediated communication method is being used more than face-to-face communication method to maintain formal and informal relationships.
 7. Research has found that ICTs made personal relationships smooth and strong.
 8. Research has found that ICTs make interpersonal communication very economical and smooth so that people can talk from anywhere and anytime.
 9. The study has found that ICT improves connectivity among people and provides various platforms for quick interactions that affect face-to-face communication.
 10. It was found that digital non-verbal cues, such as emojis, are having the ability to express emotions in the same way as face-to-face communication that is often replacing face-to-face communication.
 11. Research has found that emojis are frequently being used in text messaging and instant messaging during communication.
 12. It was found that emojis are replacing words and sentences during text-based (text messaging and instant messaging) interpersonal communication, because as it has the ability to convey feelings and emotions.
 13. The study found that the same emojis is repeated to reflect the intensity of any emotion. The repetition of emojis depends on the intensity of the emotion.
 14. Research has found that non-verbal cues are becoming universal language because it can convey emotions, postures, gestures, etc. like real communication without any words, sentence and physical presence. People do not need to learn any words, accents, dialects, and languages to understand.
 15. The study found that communication through Emojis makes text messaging easier to write and understand. Even the illiterate person quickly understands the feeling and emotion behind the expression.

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16. Research found that communication with Emojis saves time during text communication but also affects the grammar of the written language.
 17. It was found that Textism (Alphanumericism, Shortenings, Contractions, Clippings Initialisms, Acronym, Non- conventional spellings, Accent stylizations, Onomatopoeic spellings (misspelling/typos)) are being used by people during text-based communication.
 18. Research has found that Textisms are becoming a new and stylish pattern for communication. Sometimes it also increases the confidentiality of the messages, as there is no rule of words, sentences and grammar. Which helps users in personal communication
 19. The study found that frequent use of Textisms would affect the grammar of our written language and communication.
 20. The research found that heavy use of textual content affects a rising student's knowledge of the written language and creates spelling mistake problems. Although may be they do not have awareness about it.
 21. The study found that frequent use of ICTs (social media) led to feeling restless and anxious all the time, leading to increased levels of anxiety in individuals.
 22. Research has found that uncontrolled use of ICTs (Internet and social networking sites) keep people away from their real world, which leads to loneliness.
 23. It was found that negative online interactions lead to feelings of worthlessness and hopelessness, leading to depression.
 24. Research has found that the use of substance abuse and abusive language is very common for heavy users of the internet and social networking sites, as it is presented on the many internet and social networking sites in a positive way.
 25. The study found that loneliness attracts people towards a virtual based society, which leads to social isolation. The negative content of the virtual world affects personal health and their mindset, which causes mood change disorders.
 26. Research has found that frequent and regular use of social media led to poor academic records and work performance, due to which people no longer use their brains for creativity and other

8.6 Recommendations of the study

Based on the above results and findings of the study, suggested recommendations are following.

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- 8.6.1** Internet and social networking sites (ICT) departments, organizations, and experts should regulate consequences for uncontrolled users, young adults and children. In addition, it should also prepare guidelines for adolescents and their parents of the ill effects of excessive use of the Internet and social networking sites.
- 8.6.2** Sometimes users start taking unnecessary and breathtaking information that affects their academic career and personal life that's why there is a need to set an age limit to use the Internet and social networking sites because teenagers are not enough to understand what information is for them or not.
- 8.6.3** There is a need to avoid various new and attractive patterns of communication such as hyperpersonal (communicating with emoticons, emojis stickers, animated gifs, etc.) and various textisms because it is creating spelling mistakes and pronunciations problem in teens and young people. Not even this, it also affects the teens' memory and their reading and learning behavior.
- 8.6.4** In the current scenario, there is a need to aware of the teens about the negative effects of the Internet and social media by parents. In addition, parents also need proper knowledge about the consequences of uncontrolled use of it.
- 8.6.5** Now Internet and social networking sites become an addiction like other addictions, so programs and workshops should be organized and conducted for the users.
- 8.6.6** People should avoid overuse of the Internet and social media all the time for communication.
- 8.6.7** Much like Japan and China, more research should be done on hyperpersonal communication patterns in the Indian context because the meaning and interpretation of emoticons and emojis may be different in all socio and cultural scenarios.
- 8.6.8** Vendors of different platforms should talk to each other about the symmetry of emojis at the time of emojis design because different platforms create different designs for the same Unicode based emojis, which became a major reason for misinterpretation of emojis.
- 8.6.9** Communication is an essential part of life and technology, which is rapidly changing the culture of communication. Several studies conducted by different countries concluded is that emojis are seen as a universal language and communication pattern, so there is a need to conduct such studies as well.
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- 8.6.10** Technology-mediated culture of communication should be a part of development communication. More technology-mediated communication theories need to be developed.
- 8.6.11** Websites and dictionaries like emojiopedia should be developed, which people can use to understand the meaning of emoticons and emojis, and also can able to compare the meaning and interpretation of it.
- 8.6.12** In 2015, the Oxford Dictionary added an emoji of "face with tears of joy"  to its dictionary. Likewise, more emojis need to be added to the dictionary.
- 8.6.13** It also needs to aware of the teens and users that "textisms" or "techlingo" are only for informal communication, which follows during texting and chatting on technology. It is not for formal communication.

8.7 Delimitations of the Research study

There is a lot of scope in the study to explore. It may not be possible to find out all aspects of research in one study. Therefore, for this study, the researcher has made some delimitation. These are as follows:

- 8.7.1** For this study, the researcher delimited the research in only higher education institutions and universities of NCT Delhi to get an opinion about the research problem. The researcher selected only UGC-listed Universities/institutions.
- 8.7.2** The researcher has delimited this research into those users' age groups who are frequently and regularly use the internet and social networking sites.
- 8.7.3** The interview schedule prepared by the researcher was created only on the basis of how ICTs affect people's culture of communication, and what kind of new and innovative ways it provides for communication. This was also based on how ICTs involved in people's daily lifestyles and affected individuals' behavior.
- 8.7.4** For the qualitative analysis in this study, the researcher purposively conducted an in-depth interview with experts followed by non-probability sampling technique.
- 8.7.5** For the sentiment and semantic analysis in this study, the researcher purposively selected the 18-smiley face and 2 emojis symbols.
- 8.7.6** Similarly, the researcher studied 10 of the most active platform vendors, but there are still at least 17 vendors with their own unique emojis renderings.

8.7.7 For the analysis of textisms in this study, the researcher has purposively selected a few English words and aspects of the English language.

8.8 Limitations of the Research

The study entitled *“Uses and Effects of Information and Communication Technologies in Interpersonal Communication: A Study in Delhi”* has been done. It is known that all research has its own limits, same as this research is also having its limitations. The limitations of this research study are as follows:

8.8.1 The major limitation of this study is the non-availability of researches and reviews of the Indian context on digital non-verbal cues as communication patterns and shortcut communication patterns.

8.8.2 Similarly, non-availability of researches and reviews in the Indian context based on Textisms and Techlingo, as generation text and communication patterns.

8.8.3 For this study, the researcher was able to take only four hundred samples due to the small population of the universe.

8.8.4 Lack of specialized departments, organizations and experts, related to the hyperpersonal (Non- verbal cues) and technical linguistic area is also a prominent limitation of the research.

8.8.5 Similarly, lack of specialized departments, organizations, and experts related to Textisms and Techlingo area.

8.9 Future Scope of the Study

The researcher has tried her best to investigate all aspects of the research problem. However, different areas are still untouched and unseen, where further studies can be performed. These are the following:

8.9.1 In the sphere of ICTs communication patterns, the same research problem can be studied in different dimensions because this study focuses only on the use, function, and frequency of hyperpersonal communication (emoticons and emojis).

8.9.2 In this study, the researcher had taken the hyperpersonal communication pattern as an objective, so another separate study can be conducted as a subject covering all paradigms of emojis as linguistics.

8.9.3 Emojis usage and its meaning can be studied according to each culture.

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- 8.9.4** A study should be also conducted on emojis to understand the meaning and use of it, which can create an easy perception of emojis according to culture.
- 8.9.5** It can also be studied that only emojis based sentences are also suitable for conversation or not, people are able to understand it properly or not, because the researcher has studied only short sentences.
- 8.9.6** For this study, only four hundred sample sizes were taken by the researcher for the survey, so further studies can be conducted on a comprehensive sample size, which will bring the more accurate result of the problem.
- 8.9.7** The researcher has conducted survey only with students from UGC recognized approved universities and institutions, so for further study, a different area may be selected where working and other people may also be a part.
- 8.9.8** In this study, the researcher used non-parametric tests and descriptive analysis such as frequency, mean, cross-tabulation, and chi-square tests to analyze and interpret the data collected, so parametric tests can be used for further studies.
- 8.9.9** Due to the study delimitation, the researcher only selected NCT Delhi for the survey, but different states can be selected to achieve better results.
- 8.9.10** This study only focuses on the effects of the Internet and social networking sites on human behavior; for other studies, researchers may take different dimensions. For example, the Internet is an addiction like drugs. The internet is a cause of psychological and mental health-related issues, which could do through a longitudinal research method in postdoctoral degrees.

8.10 Chapter Summary

This chapter gives details insight into the major findings of the research. In this chapter, the researcher has discussed the Survey-based findings. This chapter has also focused on the experts and content-based findings as well as General findings of the study. This chapter has also focused on the Recommendations, Delimitations, and Limitations of the Research. In the end, the researcher focused on the Future Scope of the Research.

CHAPTER NINE

Conclusion and Executive Summary of the Research

9.1 Introduction

The findings of the study have already been elaborated in the previous chapter. This current chapter is devoted to providing conclusions and an executive summary of the research study. In the executive summary, the thesis is summarized. In addition, the conclusion is divided into several sub-sections that focus on the findings of the research study.

9.2 Conclusion

The primary aim of the research in this study is to explore contemporary patterns of interpersonal communication, cause of use, impact on users and new dimensions and changes in patterns of communication in terms of ICTs. This research has explored these assumptions using primary surveys, in-depth interviews with experts, analysis of related previous studies, and mixed-method approaches. A quantitative study was carried out to give complete information about the reason for uses of ICTs, effects on users and changing patterns of interpersonal communication. For a qualitative study, an in-depth interview and related literature analysis assessed to identify that how individuals maintain interpersonal communication, what are different concepts and terms of ICTs, what is the impact of the integration of ICTs in users' lives? The qualitative study also exposes users who have isolated themselves from normal life and use ICTs only to maintain their relationships. From this study, it has been concluded that, along with the development of technology, the communication system has evolved, which has greatly changed the way of communication. This study concludes that ICTs reduce time and distance constraints and have made it relatively easy to communicate with more and more people. To some extent, ICTs are replacing face-to-face communication & changing language patterns not only oral as well as written also. Conclusions based on the findings of the research study are the following:

9.2.1 Maintaining Interpersonal Communication

Information and communication technologies have developed immensely in the 21st century. New and innovative technologies have made a place in all walks of life. Smartphone, the internet and social networking are also playing an important role in daily lives. The research concluded that Information and Communication Technologies

play a significant role in maintaining Interpersonal communication. This study makes a clear conclusion that ICTs play an important role in interpersonal interaction and affect their users in different ways. It is contributing to maintaining the existing relationships and encouraging the development of a new relation. ICTs have changed the way of interpersonal communication, which is also changing the approach of interaction. Video chat and hyperpersonal online communication have now become the new pattern for maintaining interpersonal relationships. Various social media platforms and social applications have made interactive communication easy and stylish.

This study concludes that respondents often use ICTs or technology-mediated platforms for interaction and maintained a different type of relationship such as friends, relatives, classmates, teachers, office workers, love relationships, etc. ICTs have provided various platforms, such as WhatsApp, Facebook, Instagram, Twitter, LinkedIn, MySpace, WeChat, Skype, E-mail, and Blog, etc., which are often used by the respondents for communication, that shows that the determination of technology is changing users' habit regarding use of ICTs for interpersonal communication. WhatsApp, Facebook, Instagram has been the most preferred platform for the respondents of this study. The popular discourse on new technology, as Thurlow (2006) points out, usually treats users as "all right or all wrong." It would seem that a measured approach is needed. With the adoption of new technology, literacy has increased in general (Thurlow, 2006). For example, Massey, et al. (2005) reviewed samples of tests taken between 1980 and 2004 by UK 16-year-olds and found that their literacy standard was increasing over time (Massey, et al. 2005).

9.2.2 Influences of ICTs on Face-to-Face Communication

This study concludes that the advancement of ICTs is replacing face-to-face communication in interpersonal communication. Technology mediated communication such as voice calls, text messaging, instant messaging, video calls, emotion-based communication patterns and stylish and shortcut patterns of communication have made the way of communication more comfortable, easy, and economical. Users are using different ways of ICTs for personal communication according to their needs or we can say ICTs are creating their needs. Hyperpersonal communication patterns or features of online communication platforms have changed the ways of communication and meeting all the requirements of communication like face-to-face. It can say that this is a displacement of media in terms of hyperpersonal communication patterns that are attracting users to use. In this study, the researcher found similarities in relation to the

use of ICTs for interpersonal communication, like the Pew Internet and the American Life Project (Jones, 2009). It was found that now real face-to-face communication is changing into digital face-to-face communication (video conference, Emojis, stickers, gif, etc.). The study concludes that the Internet and social networking sites are being used not only for distance-based communication purposes but also by people who live in the same household with family members. The researcher has found that those who live with family have made the most use of ICTs for communication.

The study found that emotion and sentiment-based text such as emoticons and emojis are making communication unique and entertaining that replacing face-to-face communication. This was also investigated that respondents like to make conversation with digital emotions and sentiments. Because media richness is providing many new, attractive and easy platforms for Interpersonal communication. The research found that communication through technology makes shy and unconfirmed respondents communicable. Respondents answered that through phone calls, messages, chatting, e-mails, etc., they feel comfortable with their teachers, who do not speak in front of them. Besides, some respondents said that when we are unable to say anything in front of friends, relatives and lovers, we easily convey the same things to them on phone calls, messaging, chatting, etc. This is also becoming the reason for more use of ICTs and the replacement of face-to-face communication. This is also observed through data that ICTs are changing the cognitive behavior of its users.

9.2.3 Digital Non- verbal Cues in the Process of Interpersonal Communication

This was found that respondents have often used non-verbal cues (😂👍) in their interpersonal communication. It is also found that the maximum respondents are using more emojis in informal communication than formal communication. This study concludes that emoticons and emojis have become new and unique patterns for communication. These emoticons and emojis are having the ability to express human emotions and sentiments just like face-to-face communication. Respondents communicate through various non-verbal cues as it helps to express emotions without typing any words and sentences. It was found that emojis are a better way of expressing emotions than text. Respondents are using emojis as being incredibly expressive, as it can communicate things that words and sentences cannot.

The study also concludes that respondents are using emoticons and emojis to make their messaging and chatting attractive and interesting. It was found that the

involvement of emoticons and emojis have changed the meaning of text messaging. It is used to avoid the seriousness and dullness of messages and chats. Most of the time, respondents used it in a complex situation as emojis are having a more effective way of expressing complex emotions. For example, if someone is angry with someone, he/she may be sent emojis like weird regret and something funny that make him/her laugh. At that time, there is no need to talk and text to say sorry. We can just send him /her sad and cry emotion through emojis.

This study concludes that various non-verbal cues are taking place of words and sentences during chatting and messaging because it is a faster and easier way to communicate than typed complete words and sentences. Emojis are able to make quick responses and save time. It was found that emoticons and emojis are generation text and modern forms of communication. Furthermore, through emojis, people can show sarcasm and introduce modesty to reduce the severity. It is also used to make messaging and chatting fun, as well as to entice people by spilling text with visual embellishments. Non-verbal cues (sentimentality and emoji) are also sometimes used to initiate and end a conversation. Research has found that it is used when people do not know what they want to say in particular messages or are not able to say anything. Not only this, but people also use it to avoid conversation.

In 2008, Azuma & Ebner (2008) said that in order to address languages and cultural differences, online graphics could become a common symbolic language (Azuma & Ebner, 2008). Similarly, this study found that now people frequently use digital non-verbal cues during chatting and messaging. Which shows that a new common symbolic language is formulated by ICTs. The experts of the current study also conclude that emojis are replacing words and sentences in digital communication. Emoticons and emojis are a graphic and illustrated representation of words and sentences, so everyone, such as literate, illiterate, can understand it and people who do not know different languages. Many studies concluded that non-verbal cues are becoming 'universal Language'. As similar, this study also concludes that emojis are becoming a "universal language but in informal communication." This is also found that people are interacting through symbolism that is also attracting users of ICTs.

9.2. 4 Textisms in interpersonal communication

This is found that respondents often use Textisms (abbreviations) in their interpersonal communication. Research has found that the majority of the respondents are using Textisms more informal communication than formal communication. This

study leads to the conclusion that textisms have become a new and stylish way for messaging and chatting, or it may be said that it is only for online communication. These days' new patterns of text such as alphanumericism, acronyms, phonetic, word combinations, shortenings etc are created by users in text communication. It was found that various forms of textisms made communication very easy because there is no need to type full words. Hence, respondents often use textisms during text messaging and instant messaging.

The study concludes that the majority of respondents preferred to type shorts in place of full words during messaging and chatting. It became a new type of language called 'techlingo'. It was found that the respondents in informal communication and only in messaging and chatting often use textisms. Based on experts' opinions and related literature of this study, the research has concluded that textisms only a tech-based language that is for text and informal conversation. It is not for written and formal communication. It was also found that if the textisms are used intentionally, it is okay; otherwise, it will become a problem for adults, and adults may face problems like spelling mistakes, word pronunciation, etc.

Research also found a significant behavioral change that respondents are often preferring Text messaging and chatting to talking on the phone as compared to face-to-face. There is a strong observation of data that now users are preferring text messaging instead of calling. The advancement of text messaging and instant messaging and their attractive features are now also replacing voice (talk on the phone) communication. The study found that text-based messaging is convenient, easy, and fast. This can also happen when someone is eating, walking, enjoying a party with friends, attending class, spending time with friends and family, and when someone is secretly want to communicate something. All these features make text-based communication unique and attract users. Besides this, there are no boundaries of an immediate reply. The researcher found that most of the respondents use text messaging as it saves time. They use it to be regularly connected with friends, family, relatives, and others.

The Researcher found that 83% of text messaging content involved abbreviations and shortenings. 17 % of the content found that no use of abbreviations and shortenings (textisms) because that is a formal type of texting. It found that 76% of individual contents mix of standard and non-standard spelling. On the basis of data and its result, the age group 18 to 24 years old are using more textisms in their text content than other age groups. This research concludes that it seems people are accepting new

technology in the personal communication process. Plester et al. (2009) studied children aged between 10 and 12 years; found that a higher rate of 34% used textism in their content. However, the use of non-default language should be included informal communication. Similarly, it is necessary to pay attention to the use of textism by children and especially weaker readers. The use of text language should not be a cause for concern for the majority of texts (Farina, & Lyddy, 2011). In an American Young Adult Sample, Drouin and Davis (2009) found no difference in the standard alphabetization of text and non-text. According to Ling, Baron, and Thurlow, In-text message analyzes, letter/number homophones, contractions, and accent stylizations are seldom recorded in text message representations (Ling & Baron, 2007; Thurlow, 2006). The principal typographical symbol used in the text is an "x" to signal affections. In traditional writing, a convention is also used (Thurlow & Brown, 2003).

Based on Plester et al (2008) research use of textisms and knowledge of children is not related to the written language of the 11-12 years old sample group if they have this knowledge that it is different from written language and intentionally they are using it. Similarly, the researcher found that respondents use abbreviations according to their needs for communication, which is not associated with their knowledge and not affects their written communication because they knowingly use it. In another study by Plester et al. (2009) found, word reading, vocabulary and phonological awareness are positively related to the use of textisms. In this study, the researcher has observed, on the basis of the analysis, that phonetic words, alphanumerism, and other textisms are not affecting the English language. The researcher noted that all types of textisms are new technology-based language, or we can call it "techlingo" for text communication in a fast and simple way. The researcher also found that all types of textisms were intentionally associated with a spelling mistake while it is not affecting with written spelling ability. According to Ling & Plester et al, females use more text with textisms (Ling, 2005; Plester et al., 2009). However, in this current study, the researcher noticed that males and females equally use textisms during text communication, which is a different and new aspect of this study. The nature of the sample and time gaps may be the reason for these differences. This shows that there is no gender effect on the use of textisms during text communication.

In summary, there is a different form of textisms, which is frequently used by texter. Followed by the respondent's opinion, textisms are a new kind of tech-language

or we can say “techlingo”. This is often used by the youth. “*Text language makes use of emoticons (: -)), typographic symbols (xxx), acronyms (BBC), initialisms (lol), letter/number homophones (I&), shortenings (tues), contractions (wknd), g-clippings (goin), other clippings (hav), non-conventional spellings (fone) and accent stylizations (gonna). Additionally, onomatopoeic spellings (woohoo), omitted apostrophes (cant), and hybrids (two or more of the above) are found*” (Farina, & Lyddy, 2011). The most common forms, like conventional spelling, accent stylizations, and onomatopoeic orthograms, are the most commonly phoned, and display languages. Besides, it has been found that textisms are the creativity of users who construct and use it to convey their messages.

9.2.5 ICTs and Individuals Behaviour

The study concluded that heavy users of the internet and social media mostly faced anxiety-related problems because they are habitual to regularly connect with others and they expect the same from others. If they do not get the same response then they feel ignored. If someone is facing failure or hurdles in his or her career at the same time when he/she saw some is posting or sharing their achievements on social networking sites, can be a cause of anxiety or jealousy. The study found that depression and stress associated with increased and decreased use of social media. It is found that the excessive use of social media creates sleep-disordered and other problems. The heavy use of social media has created overeating or less eating, laziness and suicidal risk in young adults. Because of it, people are avoiding physical and other activities that become the reason for the lack of mental health and self-development. Besides this, the fear of missing out (FOMO) also found the reason for behavioral change. FOMO has been associated with intensive use of social media and low humor and life satisfaction. It was found that always being online is creating feelings of anxiety, loneliness, and inadequacy.

The study also concluded that the internet and social networking sites also a reason for poor self-esteem and self-image. The excessive use of social media is creating the behavior of cyberbullying, which is the reason for social isolation and depression. It is found that frequent use of social media is the reason for poor academic records, poor work performance and less interaction in society. By its frequent use, people are less exposed to the real world. This increases their lack of confidence in the real world. It is found that the internet affects deeply individual’s behaviors.

There is a case of two brothers that was published in the Times of India report, February 2019, they were addicted to gaming. Report said that they had no time for studies, meals, bathing or changing clothes. They slept fitfully, ignored phone calls and the doorbell, and twice turned a blind eye to robbers cleaning out their house. The most odious symptom of their decline was the habit of defecating and urinating in their clothes while playing. This shows the dangerous consequences of the overuse of ICTs. The research has proven right that information and communication technologies are affecting individuals' behaviors in positive and negative both ways. This study concludes that the excessive and uncontrolled use of the internet and social networking sites not only affects behavior it also creates psychological problems.

9.3 Executive Summary of the Research

The research on the topic *“Uses and Effects of Information and Communication Technologies in Interpersonal Communication: A Study in Delhi”* has been done. The main aim was of this research study to find out the reason of the use of information and communication technologies in Interpersonal communication and to identify the effects of ICTs on individuals’ behavior and communication process.

The **first** chapter, entitled ‘Introduction,’ explores the terminology definition of communication, information and communication technologies, interpersonal communication, and Technology-Mediated Communication. This chapter deals with the rationale of the study, research problems, the significance of the research study, aim and objectives, and hypotheses of the research study. In addition, the next part of this chapter discusses the research methodology of this research study. It deals with philosophical foundations and gives a general research approach about this study. It explores the research design and method of the research study. It gave details about the universe and population of the research. It explores the techniques of the sampling procedure, formula of sample size, and the distribution process based on population. It also deals with the analysis procedure of data and explains the method of the data collection, tools and techniques, response scales, and period of this study. Further, this chapter discusses the pilot study and the validity and reliability of data of the research.

The **second** chapter focuses on literature related to the research study. It began with the tools of information and communication technology, which plays an important role in interpersonal communication. It explores the various aspects of social networking sites and finds out the reason for the uses and effects of it on users. It also explores the new and innovative forms and patterns of communication in context of technology. In addition to this, it is also studied cited studies related to non-verbal cues, it's all paradigms, various aspects related to communication medium. In this chapter, the researcher has also explored and cited work-based Textisms and different aspects of communication forms. In addition, the effects of information and communication technologies on individuals’ behaviors also have been explored. In the end of this chapter, the theoretical framework of the research study has mentioned.

Chapter **three** discusses the Interpersonal Communication. It focuses on the concept of interpersonal communication. This helps to understand the basics and core concepts of interpersonal communication. This chapter explains the form and function

of interactive communication spots with elements and heads of interpersonal communication. Models of interpersonal communication are highlighted in further segments, which include Linear, Interactive, and Transactional model of communication. The functional and cultural aspects of interpersonal communication are also discussed in this chapter.

In chapter **four**, the researcher has discussed the role of ICTs tools and techniques in maintaining interpersonal communication through practice. This chapter also focus on how and why technology-mediated forms and patterns of communication affecting and replacing face-to-face communication. This chapter also have explored the type and kind of research that affects the individuals' behaviours. Further, there is a detailed description of text messaging, instant messaging, Hyperpersonal communication, social networking sites, phubbing, and FOMO (fear of missing out).

Chapter **five** includes the forms and function of Non-verbal cues (emoticons, ;-), and emojis 😊), which significance as communication. It provides the in depth study about the emoticon and emojis as communication tools with emotions and sentiments. It explores the meanings and functions of emojis 👍, as follow by the emojiopedia. Based on the various studies, it highlighted the different vendors are designing their own style of emojis 🎈, which are having a different meaning of the same emotion that is a cause of the miscommunication of the message. It also explores the emoticon and emojis 🐰 as a new communication pattern for communication. Further, it studied the various paradigms of non-verbal cues as as universal languages. It explores the aspects of the non-verbal cues and perspective of the replacement of words and sentences during text communication.

In chapter **six**, the researcher has explored the various paradigms and aspects of Textisms (lol, cu, kk, omg) as communication patterns. This chapter also explores the forms and functions in detail of textisms. In continuation, it also explains the mediated writing periphery, cultural transmission of text, and aspects of the text-based linguistic corpus. Further, it describes the commonly used textisms word and sentence based on related studies. It explores the methods and techniques of structure and construction of the textisms. In the last, this chapter explores the reason for the replacement of words and sentences through textisms. The literal meaning of Textisms (techlingo) during communication has also discussed and explained in this chapter.

Chapter **seven** covers Data Analysis and Interpretation of the collected data from the field survey. The interview schedule selected as a tool for data collection. The collected data analyzed with the help of graphs and tables. The chapter explores the demographic information of the sample. The next section explores the reason behind the use of information and communication technologies, which are responsible for the replacement of face-to-face communication. The use of Non-verbal cues, and Textisms during interpersonal communication and the effects of information and communication technologies on individuals' behaviors are also explored. Further, the next part of this chapter explores the experts' opinions and views on the research problem. In addition, sentiment and semantic analysis of non-verbal cues, which sometimes lead to misunderstanding, is discussed in this chapter. Besides, this chapter also focuses on textism's structure and analysis that is based on the content of various aspects of the English language.

Chapter **eight** discusses the findings of the research study. It explores the findings based on objectives. The next section of the chapter, also explores the survey-based findings, experts' opinion-based findings, and general findings related to the study. The last section of the chapter explores the recommendation, delimitation, limitation, and future extensions of the research study.

Chapter **nine** discusses the conclusion of the research; it develops insights about the usage of various variables of information and communication technologies for interpersonal communication. It explores the facts of information and communication technologies as a communication platform.

9.4 Contribution of this Research study in Society

1. The major contribution of the study for society will be that it will make people aware about the outcomes of uncontrolled and overuse of Internet and social media, such as uncontrolled behavior, loneliness, depression, substance abuse, social isolation, poor academic performance, work performance, and mood change disorders.
2. This research will make aware to people about the new and innovative pattern of communications, which people are using frequently but do not know the actual names and forms of it, for example, forms of textisms.
3. This research will introduce society to the over-involvement of the internet and social media in their lifestyle that will make people aware of the over-

dependency and its side effects. As well as it will also convey how it is helping us in day-to-day life.

4. This research will help in understanding the advancement and use of technologies in communication and bring out new perspectives of it.
5. This research will help policymakers to plan a code of ethics for use of ICTs. It will also guide concerned authorities, other organizations (like NGOs), and families about both effects that how it is helpful and harmful to youth as well as for society.

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Annexure I

Interview schedule

This interview schedule has been prepared for Ph.D. research work. The purpose of this interview schedule is to find out the use and effects of information and communication technologies in interpersonal communication. Your valuable feedback will be helpful to the researcher to accomplish this study successfully. The researcher assures you that the information you provide will only be used for the purpose of the research study and will be kept confidential.

Section A: Introductory Questions

<u>Introduction of participants</u>				
Name(optional)-			Age-	
Department Name-				
University Name-				
Gender(✓) -		Male	Female	Others
Present Education(✓)-	Graduation	PG	MPHIL	PhD
Marital status(✓)-	Single		Married	Divorced
Staying with(✓)-	Friends/roommate (hostel/PG/room/flat)		Single(hostel/PG/room/flat)	Family

Section B: Specific Questions

1. Rank the ICTs based methods from 1 to 11 that you use to maintain the following relationships.

[illegible]

6. I spend _____minutes/hour per day on each ICTs and Patterns of communication. (✓
For each one of spend times)

	Less than 10 mints	11 to 30 mints	31 to an hours	1 to 2 hours	3 to 5 hours	More than 5 hours	Not use
Face-to-Face							
On phone							
On SMS							
Email							
Whatsapp							
Facebook							
twitter							
Google+							
Instagram							
Skype							
Video chat							

7. ICTs (*smartphone, Whatsapp, facebook, email, internet etc.*) affecting Interpersonal communication because

(CODE: Disagree-1, neither agree or Disagree-2, Agree-3)

STATEMENTS	CODE
It brings Gaps in Face-to-face communication	
It saves my time and money because I can talk anytime and anywhere around the world which is not possible in Face-to-face communication	
It is providing us second life and society for social interaction which is a virtual world, where we can interact globally	
In Face-to-face communication, physical presence is required for interaction, but in ICTs based communication not.	
I feel bad when I am with my close friends, family, and colleagues, and they are busy with their phones and laptops.	
I observed that when individuals are busy with phones and laptops, they are do not take an interest in face to face communication	
I feel that I can talk to my family, friend, colleagues, teacher, acquaintances, etc. many times in a day if I am not with them. Which is not possible in face to face communication?	

8. I use Emoticons (:-o)/ Emojis (😂) for _____communication. Please (✓)

(CODE: 1) Formal Communication (teachers, staffs), 2) Informal communication (friends), 3) both

9. How do ICTs (Facebook, Instagram, Whatsapp, phone call, email) maintain your relationship?

(CODE: 1- Improved, 2- Unimproved, 3- Smooth, 4- Strained, 5- No effects)

10. I frequently use _____ for Emoticons/ Emojis/smiley (😊) based communication.
(Please rank from i to vi in increasing order)

i) Whatsapp [] ii) Facebook [] iii) Messaging (SMS) []
iv) Email [] v) Instagram [] vi) Twitter []

If any others please specify_____

11. I use Emoticons / Emojis (😱) because it

(CODE: Disagree-1, Neither agree or disagree-2, Agree-3)

STATEMENTS	CODE
because it(🎉) makes texting easier than words	
because it (🍷😊) makes texts attractive	
because it (😭) makes texts easier to understand	
I use it(🏃) to save time	
I use it (❤️) in my text messages to make fun	
I use it(👉) to express my feelings and emotions	
I use it (🐵) in text communication to enhance the interest of receiver and sender	
It (👩) is shortcut patterns of text communication.	
It is (👩) important to include in a text messaging.	
I use it (🥥) place of word and sentences.	
I do not use Emoticons/Emoji (🔥) because it is hard to use than words.	

12. I send _____messages with Emoticons/ Emojis (🍿).

(CODE: 1) 0-25%, 2) 26-50%, 3) 51-75%, 4) 76- 100%, 5) No messages)

13. I received_____messages with Emoticons/ Emojis (🍷 🎉).
(CODE: 1) 0-25%, 2) 26-50%, 3) 51-75%, 4) 76- 100%, 5) No messages)
14. Emoticons/ Emojis (🍷 🎂) are taking place of words and sentences.
(CODE: 1) Never, 2) Rarely 3) Always)
15. I easily understand the meaning of emoticons/emojis (🚕) during communication.
(CODE: 1) Yes, 2) No, 3) Sometimes)
16. Do you think, provided emoticons/ emojis (📖) are enough for communication?
(CODE: 1) Yes, 2) No, 3) don't know)
17. Have you ever communicated only with emoticons/emojis (🏃)?
(CODE: 1)Yes, 2) No)
18. I show intensity(*level of happiness, anger, excitement etc.*) of emotion through sending many emoticons/emojis (😡 😈) of the same emotion at a time.
(CODE: 1) Yes, 2) No)
19. Please tick (✓) applicable meaning of emojis symbols, according to you

a.	😊	1) To express genuine happiness	2) To express warm	3) To express positive feeling
b.	😍	1) To convey enthusiastic feelings of love	2) To convey enthusiastic feeling of adoration	3) I love this person or things
c.	🙏	1) To express Prayer /Namaste	2) To express High- Five	3) To express Please and thank you
d.	👌	1) To convey I'm okay/Yes	2) To convey that's Correct	3) To convey that's Good
e.	❤️	1) For expression of love	2) To Convey affection and care	3) To express cordial love for pure heart
f.	🌸	1) To convey Congratulations	2) To convey honor	3) For convey proposal of love
g.	🍷	1) To Convey Dinner	2) To Convey Breakfast	3) To Convey Lunch

20. Please give the code for the following statements

(CODE: Disagree -1, neither agree or disagree-2, Agree -3)

STATEMENTS	CODE
I chat much because I want to be in touch with people.	
I think chat and messaging is more convenient rather than talking on phone/face to face communication.	
I feel that due to social networking sites, we are not able to communicate personally and physically.	
I use social networking site to maintain my social interaction and activity.	
I use social networking sites to improve and build my confidence.	
Uses of Social networking sites helps to relieve stress because when I post the stressor, friends and family post comforting comments.	
Uses of Social media improve my social status and help me to earn respect among my peers.	
I feel social networking sites give me chance to make an opinion on any burning issues/movements.	
During the messaging and chatting it is necessary to follow grammar rules	

21. Please tick (✓) the emojis symbols according to the following sentences

I am sad Feeling sad	1  ☐	2  ☐	3  ☐	4  ☐
I am not well Suffering from fever	1  ☐	2  ☐	3  ☐	4  ☐
My heart is broken My heart will break.	1  ☐	2  ☐	3  ☐	4  ☐
It's very tasty Yummy, Delicious, etc	1  ☐	2  ☐	3  ☐	4  ☐
I like it or Ok Ok, Agree.	1  ☐	2  ☐	3  ☐	4  ☐
I am thinking I am trying to understand	1  ☐	2  ☐	3  ☐	4  ☐
Feeling sleepy, bye I just wake up, Hello	1   ☐	2   ☐	3  ☐	4   ☐

22. Please choose the moods (🧐) code for the following words.

Code-1 	Code-2 	Code-3 	Code-4 	Code-5 	Code-6 	Code-7 	Code-8 	Code-9 	Code-10 
Code-11 	Code-12 	Code-13 	Code-14 	Code-15 	Code-16 	Code-17 	Code-18 	Code-19 	Code-20 
1) Happ y	2)Sad	3)Fu n	4)Thin k	5)Angr y	6)Lov e	7)Mis s	8)yumm y	9)Cryin g	10)Ok
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23. I _____% communicate through abbreviations/ shortcuts (*for example-omg, k, cu, g9t, lol, 2day, bday, b4, etc.*) words during chatting, messaging, and online communication. Please (✓)

1) 0-25%

2) 26-50%

3) 51-75%

4) 76- 100%,

5) No messages

24. I used the following words during online texting, chatting, messaging, post, comment etc.
Please give the code for the following statements.

(CODE: 1)Never, 2) Rarely, 3) Always)

STATEMENTS (Abbreviations/shortcuts)	CODE
2day, 2nite, g9t, gr8t, 4, 2morow, etc. (ALPHANUMERISM)	
wat, lob, luv, u, k, tc, urs, u r, bday, etc. (PHONETIC)	
Oh my god= omg , see you= cu , are= r , by the way= btw , talk to you later= ttyl Laughing out loud= Lol etc. INITIALISMS (ACRONYMS)	
<i>If other words plz mention -</i>	

25. Please give the code for the following statements (*Shortcut and Abbreviation (Textisms) likes 2day, g9t, wat, omg, tc, u etc.*).

(CODE: 1)Never, 2) Rarely, 3) Always)

STATEMENTS	CODE
I understand the meaning of abbreviations based messages and chats during texting	
I use an abbreviation in text messaging.	
I use an abbreviation in texting because it makes my text easy.	
I use an abbreviation in texting because sometimes I forget the spelling of words	
I use an abbreviation in texting because of the limitation of words space	

28. Do you think ICTs (Internet and Social networking sites) are changing the behavior and habits of individuals? Explain.

Note: Any suggestions on this survey, which you want to give_____.

Thank you very much for your time and for participating in this survey!

Ruchika Kumari
Research Scholar
Department of Mass Communication and Journalism
Babasaheb Bhimrao Ambedkar University, Lucknow
(A CENTRAL UNIVERSITY)

Expert Interview Guide

Name:

Present Designation:

Present Organisation Name with full Address:

Professional Autobiography in Brief (qualification, previous experiences, achievements, etc.):

Q. How and why ICTs are changing the behavior of individuals in day-to-day life. What type of effect has been observed?

Q. Do you think Internet and Social networking sites are the reason of Anxiety and Stress?

Q. How does Internet and Social networking sites affect human?

- a) personal life,
- b) Social life, and
- c) Professional life

Q. Do you think Internet and Social networking sites are the reason of Social Isolation?

Q. Do you think the Internet and Social networking sites are makes people more interactive.

Q. Do you think ICTs (internet, phone calls, social networking sites) replacing Face-to-face communication?

Q. How do Technology-mediated different Non-verbal cues (👍😊) are taking place of words and sentences for interaction in the present scenario? Explain.

Q. It is observed, that people frequently used the Textisms (2day, gnt, luv, kk, lol, etc.) during chatting, messaging and online texting, do you think it is becoming the mainstream short form of text language for communication.

Q. How do different Non-verbal cues (🌸🐰) and Textisms (2day, gnt, luv, kk, lol, etc.) affect our written languages and behaviors?

Experts Introduction

Brief Introduction of Experts

1. Mr. Amit Joshi
Founder of Cromatik, a design company, New Delhi
Author and Blogest
Book: TIMEPASS story of internet addiction
Timepass is first fiction novel based on Internet addiction
2. Dr Rachana Bhargava
Clinical psychologist
Behavioral Addictions Clinic (BAC)
All India Institute of Medical Sciences, New Delhi (AIIMS)
3. Dr Yatan Pal Singh Balhara
HOD of Behavioral Addictions Clinic (BAC)
All India Institute of Medical Sciences, New Delhi (AIIMS)

Some Links and Twitter Messages on Non-Verbal Cues (Emojis) and Textisms (Techlingo/Slang)

<https://www.youtube.com/watch?v=mzgw2nLKN2Q> [Emoji News]

<https://www.youtube.com/watch?v=ZfAur9lfk-Y> [Q13 News: The secrete Language of Emojis]

<https://www.youtube.com/watch?v=nD2JPHPHty8> [Zee News]

<https://www.youtube.com/watch?v=Jil7ZxzTgzo> [Emojis in hello neighbour]

<https://www.youtube.com/watch?v=TUPanks2jbI> [BBC News]

<https://www.youtube.com/watch?v=Jb9HNMhsLoo> [The Emojis Movies]

<https://www.youtube.com/watch?v=nYvvM0FXKWQ> [Emojis Movies 2017]

https://www.youtube.com/watch?v=hkA2a4_tNOs [Film Theory]

<https://www.youtube.com/watch?v=YZiCruNq14I> [How to speak on the Internet]

<https://www.youtube.com/watch?v=fKPxmH13WOQ> [Write faster with texting abbreviations]

<https://www.youtube.com/watch?v=ceBEMdyF5Fs> [Some Texting Abbreviations in English]

<https://www.youtube.com/watch?v=dYLczXaH3l8> [SMS & Whatsapp English]

https://www.youtube.com/watch?v=_X4mKfVWW9A [Internet slang, Texting Abbreviations & Acronyms]

<https://www.youtube.com/watch?v=igQrTb6JKns> [Emoji in Python]

<https://www.youtube.com/watch?v=Ca8t9JMxLwc> [Emojis: The future of communication]

<https://www.youtube.com/watch?v=uOXI-W0XhL4> [The Linguistics secrets found in billions of Emojis]





News Paper cuttings and Snapshots

