

An Analysis of Digital Era Human Communication with specific reference to Late Adolescents in Pune

Dr. Ramaa Golwalkar

Post-Doctoral Research Fellow (Culture and Communication), Department of Archaeology,
Deccan College, Pune.

Shri Vijay Kisan Shelar

Assistant Professor, Symbiosis Centre for Media and Communication, Viman Nagar, Pune,
Symbiosis International University

Abstract

Indian society started experiencing Digital technology in the 90s. The computers initiated the process of media convergence which eventually culminated into smartphones. This device has impacted the human communication in variety of ways. This research paper analyses the impact of digital technology on human communication.

The research method used for this paper is combination of qualitative as well as quantitative one. A sample of 100 adolescent boys and 100 adolescent girls from Pune was taken for the quantitative data collection through survey method. The tool used for data collection was questionnaire.

The conclusion of this research is, that the digital technology was controlling the communication of late adolescents in Pune. The late adolescent population is dependent of the smartphones for their communication but they also like the face to face communication.

Key words

Digital Technology, Smartphones, Personal Communication Technology, Media Convergence, late adolescent's communication patterns, Human Communication in Digital era.

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Introduction

It was March on 10, 1876 when Abraham Graham Bell demonstrated the functioning of the telephone. In the year 1964 Marshall McLuhan pointed out the exact position of telephone, the landline in the human life. He said "the telephone is an irresistible intruder in time and space" (McLuhan, 1964, p. 238). We wonder what would be his comment if he would have been in the cell phone age.

Analysis of socio-cultural and economic effect of media on the users and overall society is one of the major aspects of Media studies. Harold Innis was one of the early sociologies to notice that different media impact differently on the society. According to Innis, a key to social change is found in the development of communication media. He claims that each medium embodies a bias in terms of the organization and control of information. Any empire or society is generally concerned with duration over time and extension in space (Soules, 1996).

Marshall McLuhan (July 21, 1911 – December 31, 1980), a Canadian philosopher of communication theory, built upon his thinking on media effects on the theories propounded by Innis. He came up with in his outstanding contribution titled 'Understanding Media' in 1964, in which he classified in media into 'Hot media' and 'Cold media'. He elucidated that, there is a basic principle that distinguishes a hot medium like radio from a cool one like the telephone, or, a hot medium like the movie from a cool one like TV. A hot medium is one that extends one single sense in 'high definition.' High definition is the state of being well filled with data. On the other hand, hot media does not leave so much to be filled in or completed by the audience. Hot media are, therefore, low in participation, and cool media are high in participation or completion by the audience" (McLuhan, p. 25).

When these scholars had been exploring the impacts of media on the societies and cultures, the electrical technology was in its infancy. The scientists, especially physicists were experimenting on analogue techniques to record pictures, sounds with more and more clarity and their transmission. Telephone, still camera, movie camera, sound recording equipment, and radio were separately operated. With the emergence of electronics, information communication technology developed with the galloping speed. The outcome was convergence of media. The concept of convergence of media made information transmission

never before easy. All forms of information generation or gathering, storage, processing and transmission like audio, visual, textual-audio-visual can be slickly completed through one single gadget i.e. mobile phone. It has also become the major medium for entertainment as facilities like games; radio and even movies are available in it. The same can be connected to server and Internet can be accessed. In short, the convergence is nothing but blurring the distinction among various forms of communication, is transforming the mass media environment (Baran & Davis, 2000, p. 2).

James Watson rightly pointed out in his book titled 'Media Communication: An Introduction to Theory and Process', that in 1450 Gutenberg introduced the printing press to Europe. Media technology was slow to diversify until the 19th century. Steam power and the electric power accelerated the number and extent of media forms. With the development of computers in the period following the Second World War technological convergence was made possible. The 1990s saw this process dramatically speeded up with transformations brought about by digitalisation. Technological convergence has been matched, worldwide, by convergence in terms of ownership and control (Watson, 1998, p. 27)

Media convergence, thus, was one of the most significant characteristics of Post Modern Age. This technological advancement gave rise to Personal Communication Technology. People in the sixties, seventies and even the eighties of the 20th century, experienced a phone only in the latter stages of their lives. On the other hand, the young generation, post 1990s, is born and brought up in the High-Fidelity Audio Technology and Wire Free world. New media have vastly expanded the options for entertainment and information content. Human civilization is in the midst of a revolution in communication technology that is transforming social orders and cultures around the world. Each new technological device expands the possible uses of the existing technologies. New media can be combined to create media systems with a greater span that can also serve a wide range of highly specific purposes. The Cell phone technology brought this dream into reality.

Thus, the authors felt the need of analysing the human communication in this Digital Era. Hence this research paper.

Review of Literature

“Cell phones seem to prioritize communication with distant people over those sharing one’s space, and the ethics of these new behaviour are not universally agreed upon” – James Katz.

“It is not just about building the tool anymore. Now it is about what people use the tools to do. How will human behaviour shift when the appliances we hold in our hand, carry in our pockets, or wear in our clothing become supercomputers that talk to each other through a wireless mega Internet?” - Howard Rheingold.

Information Technology gave rise to the Personal Communication Technology (PCT). Cell phone is the outcome of galloping development in PCT. It is also the best example of media convergence. The cell phone gadget manufacturing companies are focusing more into converting the gadget into a complete ‘communinfotainment’ (Communication + information + entertainment) experience.

This is the age of Personal Communication Technologies (PCT) (Campbell & Park, 2008). It is evolved out of the network society of the 1990s. The main characteristic of this PCT age is the widespread adoption and use of mobile telephony. It clearly means that personal communication technologies are distinctive from other network technologies (e.g. the computer). Personal Communication Technologies are often worn on the body, are highly individualized, and are regarded as extensions of the self. It has been said that they make us individually addressable regardless of where we are (Campbell & Park, 2008).

The mobile screen has now become the ‘third screen’ in consumer lives after the TV and PC screens. Mobile phones can become mobile companions when they are able to leverage the full power of the Internet, and not just voice. Along with the boom in mobile telephony around the world, a parallel wave of innovation in wireless corporate networking promises to usher in a new world of ‘un-tethered knowledge workers’ and ‘flexible network organizations’ (Rao & Mendonza, 2005, pp. 22 - 23).

Manuel Castells in his trilogy ‘The Information Age: Economic, Society and Culture (1996, 1997, and 1998) identified it as the latest and prominent feature of social organization of the Information age. It is a synchronised and integrated network of information, production, and exchange. These networks challenge (but do not replace) the nation-state, transform (but do

not replace) stand-alone firms, and transform (but do not eliminate) human experience of space and time (Donner, 2008, p. 30). Mobile communication is definitely an integral part of personal, national, and economic life, facilitating business and increasing the conveniences of daily existence (Srivastava, 2008, p. 26).

Thomé, Härenstam, & Hagberg conducted a detailed study on ten thousand men and ten thousand women, born between 1983 and 1987, were randomly selected from the general population of County of Västra Götaland, Sweden. They concluded that because of the quick development and widespread use of mobile phones, and their vast effect on communication and interactions in work and private life, the society is experiencing cultural and social changes in positive as well as negative ways. (Thomé, Härenstam, & Hagberg, 2011). Donner (2008) also cited that Castells et al. (2007) observed the various impacts of widespread mobile use: on youth culture, on language, on politics, and on human experiences of space and time (Donner, 2008, p. 32).

Another approach, presented by Katz and Aakhus (2002) suggests an all-embracing theme of *Apparatgeist* – a universal spirit embodied in mobile technologies that, by reducing the cost of communication and by increasing individual control over the time, location, and content of communication, tends to encourage individualism and self-expression (Donner, 2008, p. 32).

It is interesting to know about the term ‘*Apparatgeist*’. It is coined by James Katz and Mark Aakhus, union of two words ‘*Appratus*’ (device: mechanical or social system to achieve human ends) and ‘*Geist*’ (mind: consciousness, spirit). This theory is designed to analyse the perception of people and how they describe their personal technology, especially the communication device. (Katz, 2003, p. 313).

The society is experiencing ‘mobile ecosystem’ due to the technological advancement. The two most important features of this ‘mobile ecosystem’ are (i) the explosive growth of MESSAGING SERVICES based on humble 160 character strings, and (ii) near addictive behaviour in the youth user segment which is now referred to as ‘Screenagers’ or ‘Generation Txtor’ or ‘Generation Y-erless’ (Rao & Mendonza, 2005, p. 25).

Based on the above literature review the researchers designed their study to analyse the digital era human communication in specific reference to late adolescents in Pune.

Methodology

Locale of Study

The present study was carried out in Pune city. It is the headquarters of Pune district and is located in the Western part of the Maharashtra State, forming a part of Pune Revenue Division.

Rationale of the study

This topic was selected because numerous studies have clearly indicated association between youth and smartphones, the communication patterns followed by the late adolescents living in the Digital age. Considering the volume and vastness of such association it was deemed necessary that the research is undertaken.

Research Objectives

For the purpose of this study the researchers set the following general as well as specific objectives:

- i. **General Objective:** to analyse the human communication patterns in Digital Era with specific reference to late adolescent of Pune city.
- ii. **Specific Objectives:** are
 - a. To analyse the effect of the smartphone as a medium of communication on the communication pattern of the late adolescent of Pune city.
 - b. To study the consequence of various communication facilities like Short Messaging Services Applications, still, video and selfi camera etc. on communication patterns like the use of language and graphic symbols as well as sound and visual clips among late adolescent of Pune city.

Nature of Study

This study was exploratory, ex-post-facto and descriptive in nature. It was exploratory because the researcher wanted to explore the Digital era communication patterns of late adolescents in Pune.

Research Approach

Both quantitative as well as qualitative approaches were employed in combination to achieve maximum accuracy while arriving at the conclusions.

Data Collection Method

The method used for data collection was the survey method.

Operational Definitions / Conceptual Framework

Following are the basic concepts used in the research:

Analysis: for the present study analysis means a systematic examination and evaluation of the data or information, to reveal the interrelationships among these pieces of information, to understand the cause and effect relationships.

Digital Era: for the purpose of this study Digital Era means a time period in the human history where the digital technology has its footprints in almost all the segments of human life and more specifically in the field of communication and information management.

Human Communication: can be defined as ‘a culturally related process wherein the communicator transmits to and receives from the receiver the information, thoughts, perspectives, emotions, feelings etc. by using oral and/or written words, gestures, sounds, music, still or moving pictures etc.’

Late Adolescents: The boys and girls from the age group 18 to 24 years.

Pune: The geographical area of Pune City which falls in the jurisdiction of Pune Municipal Corporation.

Late Adolescents in Pune: The boys and girls of age group 18 to 24 years living in the City of Pune. To avoid repetition and monotony, the researchers at times used the expression ‘young adults’ instead of ‘late adolescents’.

Sampling Method

The Universe / Population of this study is infinite.

Sampling Procedure

Pune Municipal Corporation boundary is divided into 6 Legislative Assembly Constituencies (ceomaharashtra.nic.in/). The researchers used the same as the sampling frame to get the cross-section of late adolescent population representing various educational and socio-economic strata.

Sampling Method / Scheme

Purposive sampling method was employed for the selection of the late adolescents meeting sample characteristics as - the late adolescents who were using cell phones for more than one year and residing in the city of Pune formed the final sample of the present study.

Sampling Size

Considering the time and other resources available to the researchers, they planned to take 200 late adolescents as sampling units consisting of 100 late adolescent girls and 100 late adolescent boys.

Sampling Plan for qualitative study

The researchers conducted in-depth interviews with professionals like professors, librarians, doctors, soft skill trainers, counsellors, IT professionals, lawyers, journalists, traffic police, media students, hoteliers, shopkeepers, petrol-pump owners, Auto Rickshaw Drivers etc.

Data Collection Method

The researchers used Survey method for quantitative data collection, for which they used questionnaire as a tool. Similarly, for qualitative data they employed in-depth interview schedules as tools of data collection. The data was collected within the time of frame of 19.04.2016 to 30.04.2016.

Discussion:

After the data analysis the researchers found that the late adolescents extensively use the most popular online application What's App due to easy sharing of text messages, still photographs, audio and audio visual clips, with an individual or on group for no costs.

Similarly the social networking site Facebook and FB messenger is another option which was very popular among the young adults. Now a days these Applications have extended their services even for voice calling segment, wherein the user can call and talk to another user through internet connection. It does not cost the caller or receiver any extra charges other than the usual internet pack, making interstate and international calling even easier.

Twitter is the third online social networking service which was used by these young adults. But the users kept it on the third position because of its limitations. This service enables users to send and read short 140-character messages called "tweets". Registered users can read and post tweets, but those who are unregistered can only read them. The late adolescents like Twitter for a very obvious reason. It made them easy to reach any celebrity that is the film

stars, sports persons, writers, performing or fine artists etc. and / or political leader especially the Ministers at State or at Centre to convey their comments, complaints and compliments. But most of the late adolescents were more into following their favourite celebrity to know about their day to day activities and opinions on variety of issues, and reacting to their tweets. The political leaders were followed by these young adults to keep themselves updated about the opinions of their favourite leader on a particular situation and also to seek help from them in the case of emergency.

Use of Online Messaging Services

Before the availability of 'What's app' or FB messenger kind of applications, the young adult population was using missed call for communication. This 'missed call' option is possible because the digital screen of the cell-phone displays the caller identity. Thus the receiver knows who is calling if the number is saved in the phonebook, or at least can see the number and can call back. The following messages can be conveyed through missed calls

- i. 'less balance call me back'.
- ii. to tell the receiver 'reply urgently to the MESSAGING SERVICES / emails'
- iii. to convey 'reached home safely' type communications.
- iv. just to tease their friends.
- v. to tell the receiver 'miss you'
- vi. to know the convenience of the receiver to attend the call,
- vii. for 'coming or not coming' type of communication
- viii. to prompt the receiver to call back with a hidden intention to save money.

It means maximum of the late adolescents used missed call to communicate variety of messages without verbal or text message which can be taken as an electronic improvisation of the beating the drums in ancient times. The only difference is that this improvisation is a strictly one to one i.e. interpersonal communication and not a group communication.

Use of messaging services like 'What's app' and 'FB Messenger' and SMS

The young adults sent or shared the messages through the messaging services containing following content –

- a) Sharing decent jokes,
- b) To greet their family members, relatives and friends on special occasions.

- c) To avoid unwanted conversation by sending messages.
- d) To save money on voice calling
- e) To send contact details saved in their phone book through business card messaging services to their acquaintances.
- f) To send jokes – otherwise indecent to share - through messages.
- g) To send ‘thought of the day’ every day to their contacts.
- h) To confirm the convenience of the receiver to attend the call through SMS.
- i) To conveyed their inability to attend the call by SMS.
- j) To maintain secrecy.

The late adolescent girls were more prone to use messaging services as a medium of communication than that of voice calls as compared to boys. The messaging services usage pattern was different for boys and girls. The primary purpose of sending messages for the boys was to share decent jokes and for girls was to greet on special occasions and vice versa.

It is also to be noted that more boys than the girls intended to use messages to avoid unwanted conversation whereas girls were more prone to share thought of the day than boys. The girls sent less business cards though messages than boys but were more concerned about the convenience of the receiver to talk as well as conveying inability to respond to voice call and hence using SMSs. Similarly, habit of sending messages was found more in girls than boys at the same time more girls used messaging services to maintain secrecy.

Both boys and girls were inclined to send jokes through messaging services which were otherwise indecent to share; of course, the percentage of boys was more by just 2.25%.

An entirely new language which uses minimum characters to spell any word is evolved due to Short Messaging Service called as SMS language. Since the Short Messaging Service does not allow more than 160 characters per message, this SMS language is still continued to be in practice even after the use of applications like ‘What’s app’ and Facebook messenger has almost replaced SMS.

Late adolescents’ intentions to call and talk on cell phone.

The late adolescents call and talk on cell phone just to remain in touch. They also call and talk on smart phones just as ‘time pass’. They use voice call option to discuss and take some

decision, and also 'to share news'. To elevate their mood whenever they felt depressed is another reason for these late adolescents to call and talk on smart phone. It can be said that staying connected was a felt necessity by late adolescents as they called up people to remain in touch whereas they also called and spoke to people to kill their time and nothing more. When it comes to mood elevation, girls (21%) were found using it more than boys (12.46%) and nearly 8% of late adolescent girls admitted that they keep calling out of habit as compared to about 3% boys. It can be said that girls are emotionally dependent on cell phone than boys and the percentage of habitual callers is more in girls than boys.

Use of pictures, graphics and video clips

All the young adults included as a sample in the survey were found using various forms of visuals like photographs either clicked by others or selfie, sketches, emoticons, video clips to share with their friends through What's app and on their respective Facebook page. These visuals were of various subjects, a few of them as listed by these young adults as per their preferences are –

- k) Profile pictures or selfies, photographs of some social event like marriage or college seminar, photographs of personal event like birthday celebration or old friends' get to gather etc.
- l) Capturing nature's beauty, wonder, irregularity and calamity,
- m) Places to visit type visuals
- n) Visuals of social injustice asking for help or to create awareness
- o) Photographs /clips of various Animals.
- p) Some celebrity caught on camera in some odd situation, giving some statement or making some comment which was interpreted by some news agency / pressure group as controversial, unacceptable and intolerable, or attending some social gathering and sharing some important view point or supporting some cause.
- q) Any wonderful artistic presentation by any talented established or upcoming performing or fine artist.
- r) Health related tips.
- s) Any kind of wish whether wishing a good day or wishes on a particular occasion is usually with some eye pleasing picture.

- t) Some old visuals from the archives reviving the history for the present generation.
- u) Visuals promoting a particular faith, ideology, sect or philosophy which includes sharing the visuals of a particular deity or a God man /woman.
- v) To share job opportunity/ vacancy
- w) Vocabulary, definitions, quotes from famous personalities.

Use of emoticons / emoji's either still or animated, along with the abbreviations like LOL (Lough Out Loud), ROF (Rolling On the Floor) etc. is also found to be regular practice in the messages sent by the late adolescents, to lower down the tone in the messaging conversation. All the respondents would like to add at least one visual with their message to make it more interesting.

Inferences:

The researchers tried to answer the research questions as the inferences of this study as follows –

- a. What is the effect of the smartphone as a medium of communication on the communication pattern of the late adolescent of Pune city?

The digital communication gadget like smart phone has provided the array of communication facilities to the users to use words, visuals, audio clips, emoticons and emojis with or without animation. This Digital Generation, , that is,, the late adolescents of second decade of 21st century use Graphical user interface (GUI) every now and then while communicating. This generation likes to use emoticons or animated emojis to express themselves along with the words. It has impacted on human communication in multiple ways. The human communication which started with cave paintings by prehistoric human beings got sophisticated with oral and written communication in the historic time frame. The digital technology brought the palpable shift in the human communication pattern, that is, from words to visuals.

Clicking 'Selfies' on every occasion is the current trend. Digital age has made it possible to record the moments of every individual's life. This is again a noticeable change in the society that now the commoners also have a story to tell and a history to record. Most of the smart phone users treat the practice of clicking selfies as a gesture of self-respect as against the real qualities of personality.

- b. What are the consequences of various communication facilities like Short Messaging Service Applications, still, video and selfie camera etc. on communication patterns like the use of language and animation and graphic symbols as well as sound and visual clips among late adolescent of Pune city?
- The smartphone allows the young adults to access internet and hence they are all the time tethered with their friends and family members. There is continuous connect most of the communication takes place through online messaging application software. Most of the messages are forwarded from one smartphone to another, without knowing the source of information. These forwards are so casual that no one bothers to confirm the source, and also the authenticity of the information included in the message. Thus there is enough scope to spread rumours, incorrect, non-factual piece of information in the society.
 - It is observed that the smart phone dependency of the youth is turning out to be an addiction. Mobile-addicts can be seriously affected at the psychological level but, as they don't show any physical symptoms, their disorder goes unnoticed to others. Teenagers who use mobile phones for many hours a day - talking and sending messages or missed calls - may develop psychological disorders. For them the person who was present in person became insignificant once they received a call or SMS. This behaviour actually detached them from the process of developing personal relationship.
 - Continuous use of smart phone weakens the ability to cope up with people around. The reason being the smart phones are meant to obey the orders/instructions of the user. The user becomes used to the human - machine interaction and thereby loses the knack of adjusting with fellow humans whether family members, relatives, friends or colleagues.
 - Switching off their phones causes them anxiety, irritability; sleep disorders or sleeplessness, and even shivering and digestive problems. Cell phones have not only invaded the major chunk of the daily routine but also encroached upon the life styles of youngsters individually, socially and culturally. Therefore, it was an important issue which should not be pushed under the carpet.

- The smartphone generation is so obsessed with selfies that some of them even risk their lives and some unfortunate people fall prey to this obsession by losing their lives.
- c. Whether the late adolescent of Pune city are becoming more and more authoritative rather rude, impolite and disrespectful while communicating with the elderly members of their family and also in the society?

It was observed that two third of the undergraduate boys' and half of the girls' population regularly used cell phone to communicate indecent content (sexually explicit jokes/ content) with the population of same age and also to the elder generation. The young adults are behaving in an aggressive manner rather impolite while moving in the society. Firstly, the personal technologies based on digital technology used in public space respatializes (that means rearranges or transforms the attributes related to space around) the public space. It is therefore clear that the smart telephony has extended the personal space of the user. In other words, the personal space is now encroaching the social and public space.

The elderly people have to be dependent on the young generation for their technical knowhow to understand the functions of a smart phone and/or any other gadget based on digital technology. This interaction makes the elder generation submissive vis-à-vis young adults aggressive. It is also observed that in the day to day affairs of the family, the opinions of the younger generation surpass the elders' opinions. The young generation is given preference to the elders.

Secondly, late adolescent boys and girls regularly play with their smartphone while interacting with parents or elderly members of the family. This indicates that they undermined the elders. The norm was to restrain from any other activity which distracts the attention while interacting with elders. The parents felt proud in confessing that their children did not listen to them, do not adhere to their instructions or ignore their suggestions. It can be inferred that use of smart phone has blurred the gender distinction as well as the generation gap to some extent.

Limitations of the Study:

This study was restricted to the reported and observed behaviour of late adolescents in Pune, as reported by them and observed by people around them who reported these observations to the researchers. These observations were restricted to the time frame 19.04.2016 to 30.04.2016. The Digital Technology and Personal Communication Technology both are ever developing field thus the results are restricted to the technology which was available during the data collection. The any technological developed after this time frame does not form the part of this study. The results of the study are with the specific reference to the late adolescents living in Pune. This may prove to be of help to gain a preliminary idea on how digital technology has influenced human communication in general.

Scope for Further Research:

While analysing and concluding the data received from this research, the researchers realized that there is a lot of scope for further study and investigation. The researcher with their limited sense of understanding of related disciplines suggests the scope for research on smart phone and youth in variety of ways.

Utility of the Study:

The present study can be useful for communication scholars, socio-cultural scientists, behavioural scientists, parents, teachers and professors constantly interacting with the young generation, cell phone manufacturing companies, cell phone connection service provider companies, and even for general public who is interested in upgrading their general awareness.

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